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Guidance for the Conduct of a Social Protection Expenditure, Performance and Finance Review

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by

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Background

At the September 1999 Annual meetings of the World Bank and the IMF, Ministers of member countries endorsed the proposal that country owned poverty reduction strategies should provide the basis of all World Bank and IMF concessional lending, and should guide the use of resources freed by debt relief under the enhanced HIPC initiative. Based on this agreement World Bank, IMF, multi-lateral and bi-lateral donors have been engaged in dialogue to assist countries in preparing their Poverty Reduction Strategy papers (PRSP). They are built on research, experience, and, most importantly, innovative and successful programs pursued by the countries themselves, to ensure that the needs of the poor come first in the formulation of public policy. However, what are the needs of the poor, and how can a country make sure that it addresses these needs in an appropriate and meaningful manner?

It has widely been acknowledged that the poor are the most vulnerable in society, mainly as they are ill-equipped to manage diverse risks ranging from natural (such as earthquake and flooding) to manmade (such as war and inflation), from health (such as illness) to political risks (such as discrimination). Thus, governments and other stakeholders are required to adopt a forward looking and pro-active role in poverty reduction. They need to improve the availability of and the access to instruments that help the poor better manage risks, in order to reduce their vulnerability and over time escape poverty (see Alwang *et al.*, 2001; Heitzmann *et al*., 2001; Siegel et al., 2001; Holzmann and Jørgensen 2000; 1999; World Bank, 2000c).

Social protection (SP) interventions are particularly crucial in this respect as they shape – together with other social sector interventions – the development process. Given their heavy bearing on the poor's livelihood strategies, it is vital for policy-makers to have a profound understanding of the performance and effectiveness of existing SP interventions.

Public expenditure reviews (PERs) are one instrument that assists policy-makers in this respect. PERs are essentially comprehensive macro reports with a mandate to focus on the efficiency and efficacy of resource allocation. Some PERs are sector specific. While both health and education have been covered several times, SP expenditures have not yet been included properly in PER work.

Moreover, public expenditure reviews so far have not considered the many inter-linkages and cross-cutting issues between the social sectors, which consist basically of health, education, nutrition, social protection, water and sanitation. For example, empirical evidence suggests that improving education outcomes correlates with better health outcomes, etc. Reviewing health and education separately will not allow to examine and address this important relationship. Thus, all social sectors need to be reviewed jointly in order to optimize the linkages and prioritize interventions. Currently, the World Bank works on such a framework under the lead of the chief economist of the Human Development Network, Shantayanan Devarajan.

Objectives and Structure of the Paper

The aim of this paper is to provide some guidance on how to carry out a SP expenditure, performance and finance review – given the absence of social protection in PER work to date. Such a review will enable countries (i) to better use their SP budgets as a proactive instrument in addressing vulnerability and welfare concerns, and (ii) to propose solutions that ultimately aim at reducing poverty and maximizing social welfare.

Currently, many reviews of government expenditures and selected policy areas are undertaken by a number of institutions (e.g., the Bank PERs, IMF's GFS, the Social Protection Expenditure Reviews of ILO, as well as many other reviews of bilateral donors and multilateral organizations). These reviews serve a variety of purposes. However valuable these different reviews are, they use different definitions and concepts, and demonstrate the lack of agreement about the best methods to estimate the effectiveness of expenditures. The guideline proposed here, which is essentially a blown-up version of the World Bank's sectoral PER, could be used as a common framework, which – if implemented – will help international institutions (as well as bi-lateral donors) and countries to undertake reviews with comparable results. This has at least two main effects: It enables the development of benchmarks for countries, and allows to learn from experiences of other countries. Moreover, once a methodology is established, institutions, bi-laterals and countries will be able to outsource these reviews to international and local consultants; whose work and results can be much better monitored and benchmarked. Finally, as proposed in the recent meetings between IMF, ILO, and the World Bank, SP reviews based on a joint methodology can be used to form the basis of an operational partnership at the country level between these agencies.

The guideline we propose here largely follows the traditional approach adopted for public expenditure reviews in the World Bank. It differs, however, in one important aspect: While most PERs tend to narrowly focus on the government budget, we propose to also consider activities that do not feature in the budget, i.e., interventions from the private formal and informal sectors. This is especially critical for social protection, as non-governmental organizations (NGOs), large donors or market-based systems, as well as households and communities provide or sponsor important programs which are – even though outside the government – nonetheless an important part of the SP system, and have to be considered in an analysis concerned with evaluating SP issues.

The various tasks that are necessary to carry out a comprehensive SP expenditure, performance and finance review will be identified. This paper does not, however, repeat essential PER methodology. At the end of this paper, we provide some templates (see Annex 1) that will assist analysts in the conduct of their work. The reviews shall primarily be carried out by country officials (e.g., directors of budgets and/or planning from finance and social sector ministries) with assistance of local researchers and with technical assistance from IMF/ILO/WB and other donors as required.

In what follows, the first section intends to provide some conceptual underpinnings. Analysts who are entrusted with carrying out this review might want to consult this section

for clarification of the approach, or skip it and turn straight to the guideline as such. In section 1.1, social protection will be defined for the purpose of this paper, and the conceptual framework for this definition will be discussed. Then, the rationales for public interventions, which are the benchmarks for the allocation of scarce public resources, will be presented (section 1.2).

From the second section onwards, some guidance is provided for the conduct of a comprehensive SP expenditure, performance and finance review. Section 2 is concerned with the identification of relevant SP activities in a country (section 2.1), and provides some suggestions on how to classify these activities in a meaningful way (section 2.2). The third section includes proposals on how to monitor the overall effectiveness of SP interventions applied, both in terms of outcomes (section 3.1) and risk/risk exposure (section 3.2). This will allow to identify both gaps in coverage, and shortcomings with regard to the existing mix of SP interventions (section 3.3). The fourth section is then concerned with assessing the effectiveness and efficiency of SP interventions. This includes an overall assessment of the policy framework in a country (section 4.1), and suggestions on how to examine specific SP interventions in more depth (section 4.2). The focus of this section is thereby on instruments that – while sometimes part of traditional PERs – might prove particularly relevant in the context of social protection. In the final section, the main issues with regard to a review of SP interventions are summarized, and a way forward is proposed (section 5).

1. Conceptual underpinnings

In this section, main conceptual underpinnings are outlined. This includes both a discussion of the definition of SP applied (see section 1.1), and a discussion of rationales of why the public sector should (or should not) engage in the provision or finance of SP interventions – given the scarcity of public resources and the need to make complex allocation decisions (section 1.2).

1.1 Social protection: Definition and conceptual background

Social protection is traditionally defined by its program components, which essentially consist of labor market interventions (including child labor), social insurance (including pensions), and social safety nets (including social assistance and social funds). This narrow conceptualization provides little guidance on how SP can contribute to effective poverty reduction beyond passive income redistribution. Thus the SP sector in the World Bank (2001a:9ff.) has adopted a new strategy based on a broader definition of social protection which is presented below (section 1.1.1).

1.1.1 Definition of social protection

According to this new approach, SP interventions are (i) public interventions that assist individuals, households, and communities to manage risk better, and (ii) that provide support to the critically poor (World Bank, 2001a:9). This definition is based on the social risk management framework (Holzmann and Jørgensen, 2000; 1999), which acknowledges that all individuals, households, and communities are exposed to multiple risks from different sources. Poor people are typically less equipped to manage these risks than other population groups which makes them more vulnerable to these risks, and their adverse outcomes. SP interventions are among the instruments that aim to reduce this vulnerability by (i) improving the instruments available to manage risks, and/or by (ii) helping the critically poor.

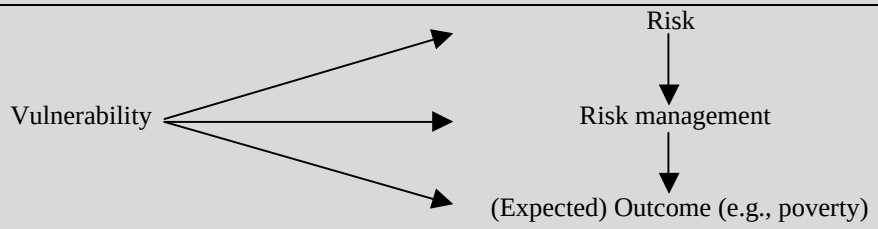
According to this broad definition, SP interventions are thus not only perceived as a safety net, but also as a springboard: While a safety net for all should exist, the programs should also provide poor people with the capacity to climb out of poverty. SP interventions are regarded as investments rather than costs. It is acknowledged that transfers to cope with a shock may not accomplish the same goal, as helping the poor to maintain their access to basic social services during shocks. This requires that SP should focus not only on the symptoms, but also on the causes of poverty (World Bank, 2001a:9).

In the following section (section 1.1.2), the main rationale behind this broad definition of social protection is laid out (see Holzmann and Jorgensen, 2000; Siegel and Alwang, 1999).

1.1.2 Risk and risk management

SP is concerned with helping the critically poor, and with assisting them to better manage risk. The main rationale for this focus on risks is derived from the conviction that households are vulnerable, because they are exposed to risks, and might not be well equipped to manage these. These sources of vulnerability (risk exposure and insufficient risk management) might lead to poverty (or deepen poverty of the poor). Thus, SP, as well as interventions of other sectors, have to address and reduce vulnerability by improving risk management.

Box 1: Risk and vulnerability: The "risk chain"



Vulnerability can be decomposed into three parts of a "risk chain":

(a) Risk: Risk is a probability distribution of events which – if they materialize – might cause a welfare loss which might be substantial enough to push non-poor households below the poverty line, or poor households deeper into poverty.

(b) Risk management: Risk management, or risk response, comprises all actions taken to respond to downward sides of a risk. Risk management can be applied before a risk occurs, or after it has been materialized.

(c) Outcomes: The risk together with the risk responses lead to an (adverse) outcome.

Vulnerability is the forward-looking state of *expected* outcomes, which are in themselves determined by the magnitude, timing and history of risks and the risk responses. Households are *vulnerable* if a shock is likely to push them into (or deeper into) poverty (or any other predefined threshold).

Source: Heitzmann *et al*., 2001: Box 1

Vulnerability of households[1] can be decomposed into several components of a "risk chain" (see Box 1, and Heitzmann *et al*., 2001, from which the following is largely derived): a) the risk, or risky event, b) the options for managing risk, or the risk response, and c) the outcome in terms of welfare loss. A household[2] is vulnerable *to* suffering an undesirable outcome, and this vulnerability to a welfare loss comes *from* risks. The responses of a household to risks (and/or the outcomes caused by this risk) are essential to

[1] We use the term households to include individuals and households. The vulnerability of individuals within a household and intra-household dynamics can also be important to understanding household vulnerability.

[2] Clearly, risks do not only threaten individuals and households, but larger communities, such as regions, a whole nation or even more than one nation. In this paper, we will, however, confine the discussion to household risks only.

understand its vulnerability[3]. The search for the optimal vulnerability reduction thus involves to understand risks, and the outcomes they produce, as well as the most efficient means (and tradeoffs) of managing risks (Alwang *et al*., 2001:2).

(i) Risk and risk exposure

Vulnerability thus begins with a notion of *risk*. Risk is characterized by a probability distribution of events. These events are themselves characterized by their magnitude (including their size and their spread), their frequency and duration, and their history – all of which affect vulnerability from the risk. Whether individuals or households are actually *exposed to risks* depends on various factors. For example, exposure to health risks depends on the existing health and nutritional status of the individuals, their physical assets such as housing, infrastructure and household location, as well as on their information and behavior, as all of these (and other) factors determine their exposure to this type of risk.

(ii) Risk management

If the expected consequence of a risky event is likely to result in a welfare loss, households can *respond to,* or manage, risks in several ways – given that risk management instruments are available and/or households have access to them. Following Holzmann and Jørgensen (2000; 1999), at the present time (*t=0*) it is possible to separate risk management into *ex ante* and *ex post* actions. *Ex ante* actions are taken before a risky event takes place (*t–1*), and *ex post* management takes place after its realization (*t+1*).

Ex ante risk reduction strategies essentially comprise three different types (see also Box 2): (a) Risks can be reduced or eliminated (*risk reduction* or *prevention*), (b) *exposure to risk* can be *lowered*, and (c) actions can be taken to provide for compensation in the case of loss (*risk mitigation*). Measures to reduce or prevent risks focus on the risk itself and target the downward side of it. Measures to lower risk exposure attempt to reduce the susceptibility of individuals, households, communities, regions or nations to risk. Measures to mitigate risks focus on the expected outcome of a risky event, and provide compensation in the case of loss. Risk mitigation includes formal and informal responses to expected losses such as self-insurance (e.g., precautionary savings in financial or other assets), formal insurance, portfolio diversification, hedging or the establishment of social networks.

Ex post risk coping activities are responses that take place after a risk has materialized. Coping involves activities to deal with realized losses (or: actual losses) by way of selling assets, seeking "emergency" loans (from relatives and friends, moneylenders, banks), removing children from school, migration of selected family members, seeking temporary employment, etc. Some governments provide formal safety nets such as public works programs, food aid, and other transfers that can help households cope with risk. Again the

[3] How a shock is transmitted to households – and how households are able to respond to it – depends largely on the assets of the households (Siegel and Alwang, 1999), as well as a country's institutions, and policies.

effects – and tradeoffs – of different coping strategies have to be examined carefully. While removing children from school might be an efficient response to lower expenditures after an income loss, this strategy increases the vulnerability of children and their families with regard to future risks they will encounter.

Box 2: Risk management strategies: forms, aims and focal points

Ex ante risk management	
Risk reduction	Prevents or reduces **risk**
Lowering risk exposure	Lowers **risk exposure**
Risk mitigation	
Portfolio	Provides compensation against e*xpected* loss (based on **expected outcome**)
Insurance	Provides compensation against e*xpected* loss (based on **expected outcome**)
Hedging	Provides compensation against e*xpected* loss (based on **expected outcome**)
Ex post risk management	
Risk coping	Copes with the **realized losses** associated with a risky event

Source: adopted from Heitzmann *et al*., 2001: Box 2.

Actors in risk management (see Box 3) are individuals and households, communities, NGOs, the public sector (at a local, regional and national level), market-based companies, donors or international organizations (for more information on these actors, see Holzmann and Jørgensen, 2000). All of these actors play a dual role in risk management: they (i) are exposed to risks and have to manage them, and (ii) they provide (and/or finance) risk management instruments. It is important to emphasize that all actions applied by different actors and at different levels affect risk and vulnerability at other levels or actions taken by other actors (see Holzmann and Jørgensen 2000; Siegel and Alwang, 1999).

It is helpful to differentiate risk management activities of different actors by their arrangement, i.e., their degree of formality (see Box 3). *Informal arrangements* (such as marriage, mutual support, savings in real assets, etc.) are risk responses that reflect self-protection by individuals, households or communities through informal/personal arrangements. *Market based arrangements* (such as financial assets or insurance contracts) require diverse well-functioning market institutions (including a central bank, banking system, securities markets and insurance companies). *Publicly mandated or provided arrangement*, such as social insurance, transfers or public works, are often provided in case that the informal or market-based arrangements break down, are dysfunctional or do not exist. When it comes to assess the efficiency, equity and sustainability of such instruments (as for example in public expenditure reviews) the degree of formality of risk management instruments becomes relevant.

Risk management actors can also be differentiated according to the different levels at which they operate or at which they are linked (see Box 3). For example, households manage risks at a micro level, communities at a meso level, etc. Several actors have the potential to manage risks at different levels. For example, public institutions can inter-

vene at a meso (e.g., through its local and regional governments) or a macro level (e.g., through its national government).

Box 3: Actors in risk management by levels of formality and intervention

	Levels of formality		
Levels of intervention	*informal*	*formal*	*public*
micro	Individuals, households	Market-based companies	--
meso	Communities, NGOs	Market-based companies, donors, international organizations	Local or regional governments
macro	NGOs	Market-based companies, donors, international organizations	National government
global	NGOs	Market-based companies, donors, international organizations	Supranational government (e.g., EU)

Source: Heitzmann *et al*., 2001: Box 3

(iii) Outcomes

Risks, combined with the household responses lead to the *outcome*. Whether a household is *vulnerable to* an *outcome* has to be judged against some benchmark which is a socially accepted minimum reference level of welfare (for example, the poverty line). It is important to stress that welfare losses, in and of themselves, are not sufficient to define a household as vulnerable – only if the welfare loss (often called the *hazard*) is so substantial that it shifts the household below or deeper into poverty is the household defined as being vulnerable[4].

Clearly, given the different distribution of assets between households, one and the same event can have different welfare effects. For example, a drought can destroy most of the few assets of a very poor family, and push them below the poverty threshold, while it might not have the same consequence for a family with a stronger distribution of assets. Similarly, households with similar assets but different risk responses might experience different outcomes. For example, a drought and the resulting income losses might lead to poverty of one farmer's household. If the same household had obtained a crop insurance, it would not be vulnerable to the negative outcome.

The dynamic nature of risk and risk response co-determines together with the asset-base of a household which consequences one particular shock has on its welfare[5]. Vulnerability is thus the forward-looking state of *expected* outcomes, which are in themselves determined by the magnitude, timing and history of risks and the risk responses.

[4] The most common threshold that is used in this respect is the poverty threshold. This implies that if the hazard is large enough to shift households into poverty, these households are (together with poor households) considered to be vulnerable to the outcome.

[5] The emphasize here is on vulnerable *households*, however, the same line of argument can be applied to individuals, communities, regions or nations.

1.1.3 Optimal vulnerability reduction

As has been mentioned earlier, poor households are usually constrained in their choice of risk management instruments, among them SP interventions, which enhances their vulnerability to adverse outcomes caused by shocks, a vulnerability which in turn enhances their susceptibility to (future) shocks: while poor households might be able to mitigate or cope with a risk or a set of risks at a given period in time, the process can result in limited ability to manage (even the same type of) risks in subsequent periods – especially when their assets are degraded (see Siegel and Alwang, 1999). Thus, helping the poor to better manage risks – as is one aim of SP (see section 1.1) – will reduce their vulnerability, help them to escape poverty, and, in a dynamic process, prevent poverty.

There are no general rules that *a priori* determine which risk management strategies, among them SP interventions, are preferable over others. Rather, the search for the optimal vulnerability reduction has to take account both of (a) the magnitude, timing and history of risks, and (b) the risk responses taken (which in themselves depend on the availability of and the access to risk management instruments).

While *ex ante* measures allow to eliminate or reduce risk, lower risk exposure, and mitigate against the expected loss (see also Graph 1), *ex post* risk management can only respond to the realized loss. This suggests that *ex ante* measures might be preferable to *ex post* measures. However, risk mitigation as an *ex ante* risk response only provides compensation for losses after the household is impacted by a risky event. Moreover, compensation for losses is usually less than the actual losses suffered – so households often need to resort to coping strategies to compensate for remaining losses. Also, risk mitigation might prevent a household from falling below the poverty line in a given period, but might increase household vulnerability in the future. For example, while unemployment insurance mitigates against (a part of) the income loss related to a job loss, the insurance contributions decrease the assets of a household which could restrict their choices with regard to the management of other and/or future risks.

If a household decides to mitigate or cope with a risk, a variety of different instruments is available – all of which have different welfare effects, and might increase or decrease vulnerability over time. For example, one strategy to cope with an income loss caused by a risky event (e.g., unemployment, death of the breadwinner) is to take children out of school to lower household expenditures. This response might increase their vulnerability with regard to future risks, while a different coping response, e.g., public assistance, together with a forward-looking mitigation strategy for future risks, e.g., insurance, might have enabled them to better manage risks, and reduced their vulnerability.

Will lowering risk exposure or reducing downward risks produce better outcomes in terms of reduced vulnerability than mitigation or coping strategies? Not necessarily. In the long run, households should be encouraged to take risks, rather than prevent them. Taking risks, and indeed high-stake risks, is a necessary precondition for growth. Thus, while risk reduction might decrease vulnerability that comes from risk, it might at the same time be an obstacle to increasing growth and welfare.

The selection of the optimal mixture of risk responses to reduce vulnerability, which does not hamper development and growth, also has to take account of the many inter-linkages between different types of risk management strategies and instruments. To name but one example: the literature on insurance (e.g., Williams *et al*., 1995) suggests moral hazard behavior (see section 1.2.1) when compensation, such as insurance benefits, is granted in case of a loss. While mitigation instruments thus reduce the vulnerability of people to risk, this type of risk response might influence their behavior in a way that leads to increased risk exposure (and thus an insurance failure). For example, individuals who obtain an accident insurance, might tend to become less careful to related risks, and indeed increase their exposure *because* they will be compensated against the expected loss.

While there are no general rules on which risk management strategies are preferable over others, there are also no rules that determine which arrangement of actors is preferable. The optimal choice of actors, levels of intervention and formality depends on the characteristics of the risk, the characteristics of the "thing" (i.e., asset stock, income flow) at risk, and the web of formal and informal risk management practices (Siegel *et al*., 2001).

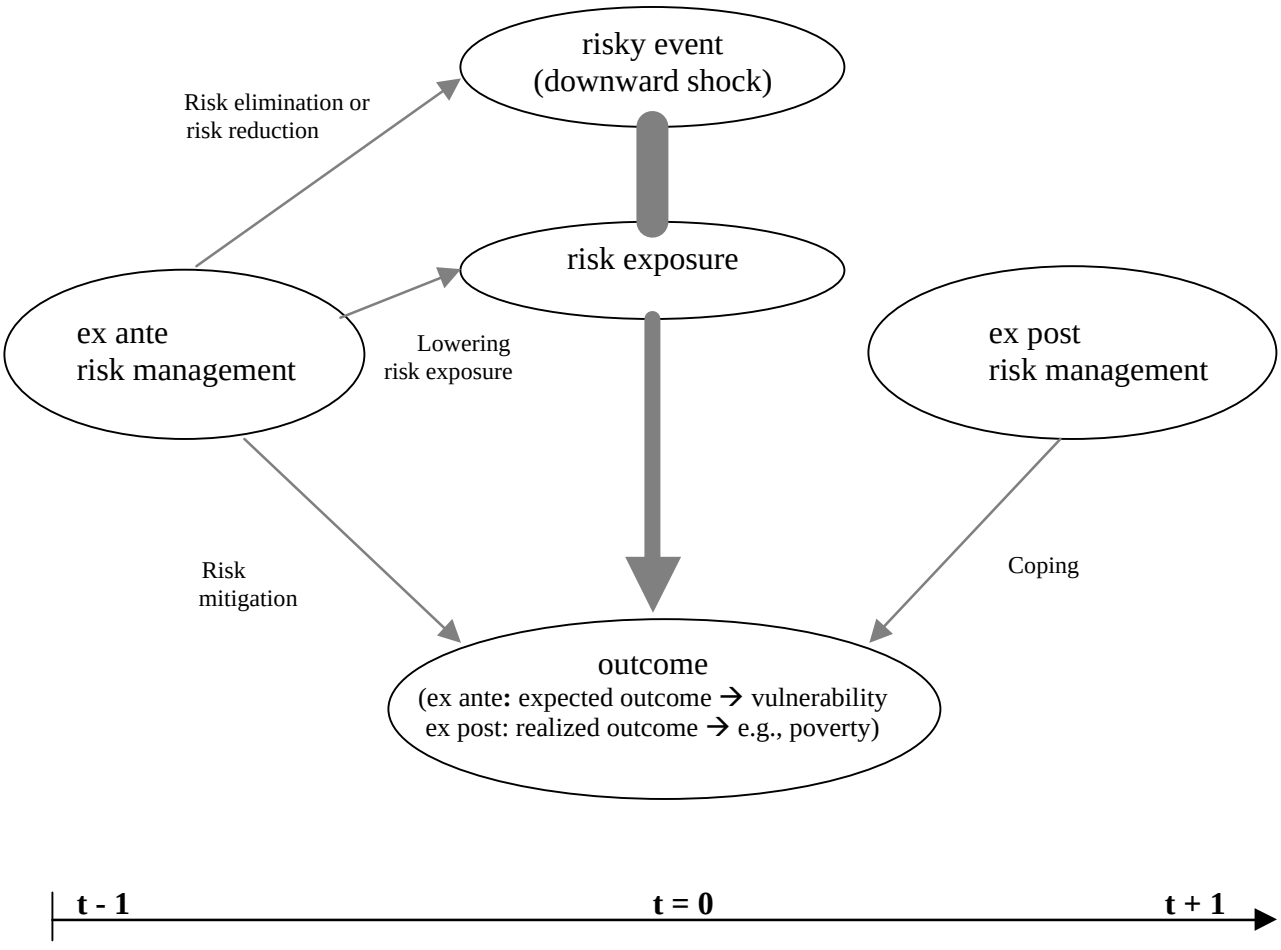
Risk management actions taken at higher institutional levels may lower or increase risk or strengthen or weaken risk management capability at lower levels: E.g., choices on economic policy by the government can increase or decrease the employment risk of individuals. Investments at higher levels often can better enable institutions at lower levels to respond to and manage risks. For instance, international disaster relief programs help households cope with risks, and disaster preparedness programs reduce exposure of communities and households to risks. Thus, the optimal risk management practice depends on alternatives at different levels and their costs, and indeed will often be a combination of several instruments, provided by several actors. For example, the management of health risks could be enhanced by micro-health insurance, and/or by expanded sanitation coverage, improved immunization, community health education, etc. – all actions provided by a variety of actors and at a variety of levels. In general, an involvement of all stakeholders in risk management (individuals, households, the civil society NGOs, market-based and public institutions) might provide comparative advantages. Clearly, this requires coordination and collaboration between these actors to make sure that their strategies complement each other, and that potential synergies are utilized.

While it is sometimes arbitrary to decide which risk responses by which actors best reduce vulnerabilities of households over time, the role of the *public sector* in risk management is key (Devarajan and Hammer, 1998). Governments can, for example, provide very cost-effective risk reduction, e.g., by providing laws and regulations (e.g., regulations against child labor, laws against discrimination, etc.), or through information and education campaigns (e.g., through HIV/AIDS awareness programs, etc.). The role of governments is, however, often ambiguous. On the one hand, they might lack an active role in risk management, and, for example, not provide formal safety nets. On the other hand, the provision of formal safety nets might actually crowd out alternative household risk management practices (e.g., risk reduction or mitigation), because the household might think it can depend on the government, donors or NGOs to help them in times of crisis. While interventions from the public sector thus have to follow some kind of ra-

tionale (see section 1.2) – not least to prevent crowding out of private initiative – many vulnerable households might not be able to afford the "luxury" of devoting scarce resources to risk reduction or mitigation – and thus depend on interventions of the public sector.

The following graph summarizes the principal framework laid out above. Downward risks, and the exposure to them, lead to adverse outcomes, leaving households more vulnerable than before, and less equipped to manage future risks. To reduce this vulnerability, risk responses have to be optimized. *Ex ante*, i.e., before the shock hits, risks can be eliminated or reduced, risk exposure can be lowered, and measures can be taken to mitigate the *expected* loss, if the risk were to occur (e.g., through insurance). *Ex post*, i.e., after the shock has hit, coping with the outcome is an option of risk management.

Graph 1: Vulnerability decomposed into risk and risk management strategies



Source: Heitzmann *et al.*, 2001: Graph 1.

1.2 Public expenditures: Rationales for public interventions

Public interventions play a major role in risk management. It needs to be emphasized though that the mere existence of risk does not necessitate public intervention. Rather, many risks can best be managed by private formal or informal mechanisms. Against the background of scarce public resources, and high opportunity costs, it is crucial to examine the appropriate role of the state in risk management, and thus in SP. For example, rather than crowding out private actions, public resources might be of better use for managing risks that the private sectors will not or not sufficiently cover.

In order to assess the appropriate role of the government, the need for, and the limitations of, government action have to be examined. Economic theory provides valuable guidance in this respect: market failure (section 1.2.1) and distributional equity (1.2.2) are two frequent justifications for government intervention. In many instances, rather hybrid rationales, such as culture, tradition, or solidarity (section 1.2.3) also explain why the public sector intervenes (or why it does not). While all these rationales provide justifications for public intervention, the capabilities of the state are in practice often as important determinants of, and constraints to, public action (Belli *et al*., 1998).

1.2.1 Market failure

When a market economy fails to allocate resources efficiently, market failure occurs. This is especially the case with regard to public goods, externalities, competition failures asymmetric information and missing markets (see, for example, Belli *et al*., 1998). In the context of risk, markets are often characterized by a risk market failure. For example, the existence of risk in general implies the demand for insurance. For reasons of adverse selection and moral hazard, however, an insurance market will fail to emerge (i.e., simply does not exist) or supply insurance in far less than optimal amounts (Devarajan and Hammer, 1998).

Adverse selection occurs if there is asymmetric information in the market place. Take health insurance as an example: demanders of health insurance in general know more about their health status than the insurer does. Thus, insurance companies generally offer health insurance at a price that is based on the average risk of the population. At that price, however, only those with a higher-than average risk will purchase insurance – leaving the insurance company with a population group that is riskier than it expected. If the company would raise the price for the insurance, however, even more people left the market, i.e., would not buy insurance at the given price, and eventually the market dried up (Devarajan and Hammer, 1998).

Moral hazard describes a situation where a person that has obtained insurance, may have an incentive to undertake sub-optimal levels of risk-reducing activities. For instance, purchasers of a fire insurance might not take all the necessary precautions to prevent a fire from breaking out, even though society would be better off, if they did. If insurance markets are thus distorted – or don't exist at all – public intervention might be considered.

It is impossible to judge *a priori* what type of government intervention is appropriate to a particular market failure. Such judgments are both country– and situation–specific and must be made on a case–by–case basis (Belli *et al.*, 1998). Moreover, whether or not governments should actually intervene depends on whether they could do better than the private market. For example, empirical studies provided evidence that public crop insurance was as ineffective as private crop insurance – mainly because of moral hazard problems. This implies that if the government can not do better than private institutions, there might be no reason for it to intervene; the free market allocation is "constrained Pareto-optimal"[6] (Devarajan and Hammer, 1998). Contrary, public intervention in an (undistorted) market can be justified, if this is a way to address a failure in a distorted market ("*second-best approach*", Devarajan and Hammer, 1998). For example, if a failure in the credit market prevents young people from obtaining student loans, then public support to education may be justified. It is vital though that the market in which interventions are being considered is linked to a truly distorted market. Moreover, removing the original distortion must be more difficult or costly than this "second-best" approach.

In addition to risk market failure, various other market failures might justify public interventions (see Belli *et al*., 1998). The existence of *externalities* is a good case in point. For example, education provides positive social externalities, i.e., benefits not only to the individual who obtains education, but a larger group. There is empirical evidence that being literate and numerate leads to "good citizenship" and lessens crime. Educated women usually have fewer children, they provide better family nutrition, and are more likely to use public health facilities etc. Thus, (primary) education has a compelling rationale for public intervention.

Also the existence of *asymmetric information* can justify public interventions. For example, many people tend to underestimate the value of preventive health care measures, such as immunization services, health, nutrition and family planning education services. Thus, these services tend to be undersupplied by the market. Consequently, public health measures could be supplied by the public sector.

1.2.2 Redistribution

An important case for public interventions can be made in terms of improving distributional outcomes (Litpon and Ravallion, 1993). Without public action, equity might be underprovided, which is of particular relevance for poverty reduction. Among the distributional objectives of public spending is thus the promotion of pro-poor growth. FGovernments have, for example, a role to play in the provision of certain types of physical and human infrastructure that would otherwise be underprovided, to ensure that economic growth fully includes those among the poor who are capable of participating. Moreover, governments have to assist those left behind during the process of economic growth. It may take a long time for some sub-groups in society to participate in economic growth. Some groups, e.g., the elderly and disabled, may indeed never participate directly. Furthermore, public interventions can help deal with vulnerability. Incomes can be highly

[6] Rather, governments might provide relevant regulations to deal with moral hazard behavior, e.g.. force all people to insure against a risk (as is done in many countries with a pension system).

variable over time, particularly in poor rural economies, where consumption smoothing is also imperfect. So, the poor can be particularly vulnerable to uninsured risk caused by uncertain weather, relative price shifts or the collapse of community-level support systems during a crisis. Moreover, they are likely to be disadvantaged in terms of access to and utilization of services (Fozzard *et al*., 2001:21).

Many governments thus intervene in the market to adjust for unequal distributions of income, access to services, opportunities or outcomes, and to achieve a more equal distribution. Targeting benefits is a common method to achieve these goals (see Subbarao *et al*., 1997, Grosh, 1994).

1.2.3 Other rationales for public intervention

In many instances, public interventions are neither based exclusively on market failure nor on equity considerations, but include tradition, values, solidarity, etc. While these rationales might only partially justify public interventions from an economic point of view, governments may want to intervene following these rationales in order to maintain social peace and stability. For example, many social sector interventions in OECD countries are based on the principle of *solidarity*. Not only the poor but also the non-poor receive social benefits and free services (e.g., universal family benefits, care allowances, free education etc.). This system guarantees that the solidarity of the non-poor, and thus the sustainability of financing social sector activities, as they receive some benefits as an exchange for their (comparatively high) contribution rates (e.g., social security taxes).

Also *tradition* might be a rationale for the public sector to intervene in undistorted markets. This can be based on historical reasons. For example, free fertilizer has traditionally been provided to farmers in many African countries. While these public interventions might have been justified in earlier decades (e.g., for equity reasons), they would no longer be necessary. As many of their voters are farmers, however, governments are reluctant to abolish this type of intervention (and lose elections).

Also *values, norms and beliefs* often are rationales for government interventions (or the lack thereof). These rationales explain why governments were, for example, for a long time reluctant to take on an active role in combating HIV/AIDS. Moreover, if women are believed to be less worthy than men, governments might not obtain a role to adjust for unequal outcomes based on gender discrimination.

After having discussed the main conceptual underpinnings for a SP expenditure, performance and finance review, the following sections are concerned with providing some guidance on how to carry out such a review.

2. Scope and structure of SP interventions

In the developing world the role of social sector expenditures in shaping the development process has become increasingly important. Policymakers need up-to-date information on their scope, composition and structure to answer questions such as how much is spent, on what, by whom and for whom. Otherwise it is extremely difficult to mobilize resources or address issues of efficiency and equity through the budget in countries with tight fiscal constraints.

This section aims to assist analysts in identifying and classifying SP interventions of a country. Section 2.1 will – after recapitulating of the definition of social protection – identify which interventions have to be considered in this respect. In section 2.2. we provide some proposals on how to meaningfully classify SP interventions – against the background of the social risk management framework (see section 1.1.1).

2.1 Identification of SP interventions

As has been elaborated above (see section 1.1), SP interventions include actions to (i) assist individuals, households, and communities to better manage risk, and (ii) provide support to the critically poor (World Bank, 2001a:9). A country's SP framework will include a set of laws and regulations and a set of expenditure programs. In addition, private mechanisms – both market-based and informal – provide important support. Indeed, less than a quarter of the world's population has access to formal social protection programs (World Bank, 2001a:9). The significance of informal arrangements as compared to formal private an public arrangements is, for example, evidenced in Togo, where 95% of the population rely on informal instruments to manage risk (Bendokat and Tovo, 1999:13).

The combination of all policies, norms, and programs represents the overall SP strategy of a country. To understand the appropriateness and success of these interventions in managing risk and providing support to the critically poor, all these aspects of a country's SP strategy have to be taken into account[7].

Thus, as a first step of a comprehensive SP expenditure, performance and finance review, analysts are required to provide an *inventory of existing SP interventions* in a country. The information gathered does not have to be in very much detail, but should allow for a broad overview of which interventions are available (and which are not). It is important that this inventory is as comprehensive as possible, and includes SP interventions (i.e., policies, laws, regulations, programs[8]) from all actors (see also section 1.1.2), most nota-

[7] The requirement to identify private formal and informal activities usually does not form part of a public expenditure review (except for the discussion of the rationale for public expenditures). Rather, PERs tend to narrowly focus on the government budget, while hardly considering the provision and finance of interventions of private actors, which do not feature in budgets and seldom appear in efficiency studies. This negligence, however, makes it difficult to reconsider targets, or reform the fiscal sustainability of essential public programs in SP.

[8] According to Pradhan (1996:6) "a program as a set of expenditures within or across a sector with relatively homogeneous benefits constitutes a useful unit of analysis" for the classification of expenditures.

bly the public sector, market-based organizations, and the informal sector (i.e., individuals, households, and communities).

Box 4: Examples of social protection activities

Public Actions

Labor market interventions: Improve the ability of households to provide for themselves through work via the development of efficient and fair labor policies, active and passive labor market programs, and pre- and in-service training programs.

Pensions: Help governments take care of their older and aging populations by creating or improving private pension provisions, mandatory savings, and public old-age income support schemes. Governments intervene heavily in both regulation and expenditure in this area.

Social safety nets: Provide income support and access to basic social services to the poorest population groups, and/or those needing assistance after economic downturns, natural disasters, or household-specific adverse events that lower income.

Child-labor reduction programs: Promote the development of human capital and increase equity and education for all groups by designing comprehensive strategies for broadly based poverty reduction, and craft appropriate legislation and programs specifically for child laborers to reduce the occurrence and mitigate the risks of harmful child labor.

Disability programs: Help the disabled through community-based services, including family support (respite care, child care, counseling, home visiting, domestic violence counseling, alcohol treatment and rehabilitation), support for people with disabilities (inclusive education, sheltered workshops, rehabilitation, technical aids), help for the elderly (senior citizen centers, home visits), and out-of-home placements (foster care, adoption).

Social funds: Through agencies, channel grant funding to small-scale projects to help poor communities design and implement their own projects to meet their self-defined needs.

Private Formal Actions

Market transactions: Private markets can provide insurance policies for health and physical assets, pension plans for retirement and vehicles for saving in good times and obtaining credit when needed.

Private Informal Actions

Informal arrangements: Support community or family members through informal insurance arrangements. Arrangements can include marriage, children, mutual community support, savings or investment in human, physical, and real assets, and investment in social capital (rituals, reciprocal gift giving).

Source: adopted from Coudouel *et al*., 2001a: Box 1, pg. 1f.

In Annex 1 we provide a template (Template 1) that will assist analysts in quickly identifying SP interventions in a country classified by the arrangement of the providers of these interventions, i.e., public, private formal and informal interventions. In Box 4, some examples of SP activities, which analysts will have to identify, are provided (for more programs, and "best-practice examples", see also Technical Note 2, Stylized Summary of Program Characteristics and Good Practices, in Coudouel *et al*., 2001b:12ff.).

With regard to *public interventions*, analysts, who carry out this part of the assessment, have to be aware of the fact that SP has a peculiar characteristic of being covered by multiple ministries, and many expenditures incurred by the ministries of finance, infrastructure, agriculture, etc. are relevant to the outcomes of SP interventions. Thus, analysts have to make sure that they capture all interventions relevant for SP, not only those housed under the ministry of social welfare[9]. To assists analysts in their work, we provide some examples of SP interventions, and their potential links to different ministries, in Box 5.

Box 5: Examples of public social protection programs and policies and their links to sector ministry budgets

Social Programs

- Social funds – Social Welfare (SW), Infrastructure (In), Presidency, Planning, Agriculture (Ag)
- Family assistance – Planning, SW, Finance,
- Employment legislation: hiring and firing rules (including severance), contracting for labor, mini mum wages, etc. – Labor, SW,
- Unemployment assistance – Labor, SW
- Job search assistance – Labor, SW
- Unemployment insurance – Labor, SW
- Job retraining programs – Labor, SW, Education
- Integrated savings account – Labor, SW, Finance
- Health insurance – Health

Food Programs

- Food for work/labor intensive public works – Labor, SW, In, Transportation (Tr)
- Food price subsidies – Ag, Finance
- Food rations – SW, Ag, Planning, Finance
- Food stamps – SW, Ag, Planning, Finance
- School feeding programs – Education, Health, SW

Other Welfare Schemes

- Agricultural input subsidies (prices or vouchers) – Ag, Finance
- Energy subsidies – Energy, Finance, Ag, Tr
- Housing subsidies – Housing, SW
- School fee-waivers/scholarships – Education, SW
- Needs based cash social assistance – SW, Finance
- Pensions rules and expenditures (contributory and non-contributory) – Finance, SW, Labor

Source: Canagarajah *et al*., 2001, Box 2, pg. 8

Moreover, analysts have to ensure that they include all significant public programs and interventions of all levels of government – namely national, regional/provincial, district/local etc. In Annex 1 we provide a template that will allow to identify public interventions accordingly (see Template 2).

[9] In the past, many studies which addressed expenditure issues of the public sector in the past have been executed along narrow sectoral 'silos', often identical with a specific ministry's budget.

Important information sources with regard to public interventions, are macro-level analyses of federal as well as regional and local budgets. However, efforts in the past to define and systematically record such expenditures have not been very successful (see Box 6) – both regarding federal budgets, let alone regional and local budgets. Past expenditure reviews have also indicated that countries follow different conventions in classifying expenditures, and hence analyses based on such data may not only be not-comparable between countries but also incorrect.[10]

Box 6: Past Experiences with Social Security Statistics

ILO's resolution in 1957 to develop social security statistics was a welcome initiative. However, as experience has shown the limited operational incentives for country authorities have made the progress on implementing the resolution extremely difficult, if not impossible. The compilation of such statistics from countries has not been forthcoming without additional work by the ILO. Even then the exercise to date has proven to be too incomplete to be useful for policy purposes. On the basis of that earlier initiative ILO adopted the International inquiry on the "Cost of Social Security" initiative in December 1997 which could serve as an effective tool in the design and analysis of social security programs around the world. However, one major concern that is unresolved is what new incentives there are for countries to implement this initiative when past efforts have not been fully implemented. The important key to sustaining these efforts is to internalize this process within the country such that it is done systematically when the annual budget preparation and review exercises are carried out. The IMF GFS Manual (2001) has made amendments to its 1986 manual to reflect social protection issues, but a lot needs to be done before it can be more than a wish list. In this regard it will be useful to engage in a discussion with relevant stakeholders on the modalities of implementation to ensure that this is, indeed, sustainable. Also, we may want to critically review the classification in "ESSPROS" and "IMF GFS" before they are implemented in the developing world as they will form the basis for a system of SP statistics in most countries.

Source: Canagarajah *et al*., 2001: Box 3, pg. 12

A further problem with regard to data on public expenditures is that the technical capabilities of monitoring and recording information in many countries are missing (see section 4.1). Also, the extent of individual capabilities to record and handle relevant data is often limited. Shortcomings in both types of capabilities clearly will decrease the value of this exercise. If these capabilities are limited or indeed missing, outputs will be modest. Thus, in the long run it will be necessary to improve both types of capabilities within potential study countries, as it will otherwise remain difficult to examine the relations between inputs and outputs of SP programs and interventions. Analysts carrying out this part of the review are required to document both information needs and demand in terms of technical and human capital capabilities.

As mentioned before (see section 1.1), SP interventions differ from many other sectors, as provision and finance often are provided by different actors. For example, while the public sector might administer insurance programs, those entitled to benefits have to pay contributions. Similarly, while private organizations provide many social services, the public sector often finances these services together with the demanders of these services. To account for these differences in provision and finance, analysts have to gather some information not only on who *provides* (see Template 1 and 2), but also on who *finances*

[10] Recent OECD/ILO work on social security statistics has been effective in rationalizing social welfare interventions in many countries.

what part of the SP interventions identified. In Annex 1 we provide a quick checklist that will assist analysts in the conduct of this exercise[11] (see Template 3).

2.2 Classification of SP interventions

After having identified (the provision and finance of) SP interventions, analysts will have to classify them. We propose to apply two "lenses" to categorize SP interventions: First, against the background of the risk management framework (see section 1.1), the importance of distinguishing between *ex ante* (risk reduction, lowering risk exposure, risk mitigation) and *ex post* risk management instruments (coping) has been discussed (see Box 2). Thus, SP interventions should be classified accordingly (see section 2.2.1). Secondly, based on the conventions of public expenditure reviews (Pradhan, 1996), we propose to classify interventions according to their functions (see section 2.2.2).

2.2.1 Classification of SP interventions by risk management strategies

As has been discussed previously (see section 1.1.2), risk management instruments, among them SP interventions, can be differentiated into *ex ante* and *ex post* instruments. To understand the focus of the existing SP framework, analysts have to identify which part of the "risk chain" (see Box 1) is addressed by each of the SP interventions. For example, in general labor market programs or policies (as well as other SP policies and regulations) aim to reduce risks or lower risk exposure. Insurance type programs (e.g., disability, survivor's sickness, old-age insurance) are typical mitigation programs, and assistance type programs (e.g., food programs, public works) are typically coping strategies.

2.2.2 Classification of SP interventions by functions

There are many more different possibilities on how one might structure an inventory of interventions. One possibility is to structure SP interventions according to their functions, as is, for example, proposed in the standard accounting recording format of the revised Government Finance Statistics of the IMF (IMF, 2001). The GFS can – together with other sources, e.g., the European System of Integrated Social Protection Statistics (ESSPROS), or the Costs of Social Security Statistics of the ILO (1997) – also serve as a primary data source for reviewing public expenditures on SP on a macro level (see also Box 6).

The functional classification in the revised GFS system (IMF, 2001: Ch. 6) classifies data according to the purpose for which an expense was incurred. The functions attributed to social protection expenditures are essentially (i) sickness and disability, (ii) old-age, (iii)

[11] A more detailed analysis of the finance of SP interventions (by the types of the revenues) is provided for specific programs in section 4.2.

survivors, (iv) family and children, (v) unemployment, (vi) housing, and a "rest" category[12].

These two types of classifying SP interventions will make it possible to see (i) for what types of risk management strategies expenditures have incurred, and (ii) for which functions. Analysts are required to classify the interventions they have identified previously (see section 2.1) accordingly, ideally by including information on the providers of the SP interventions. Box 7 provides an illustrative example of how such a multilevel classification of SP interventions could look like, classified by (i) functions (sickness and disability, old-age, survivor, family and children, unemployment, housing, and other), (ii) different types of risk management strategies (risk reduction, risk mitigation and coping), and (iii) levels of formality of the providers.

Moreover, Annex 2a contains a country example carried out in Togo as part of an analysis to adopt a social protection strategy for the country (Bendokat and Tovo, 1999). There, social protection and other interventions have been classified according to their type of risk management strategy and their arrangement.

[12] In many countries, however, data on SP is summarized under a single category only, i.e., comprising social services and welfare. Thus, whenever possible, a further differentiation of SP interventions into functional categories will allow to enhance transparency in terms of classifying SP expenditures to specific functions.

Box 7: Classification of SP interventions by functions, risk management strategies, and arrangement of providers

Functional Classification	**Risk prevention and lowering risk exposure** (e.g., policies, regulations)	**Risk mitigation** (e.g., insurance type programs)	**Risk coping** (e.g., assistance type programs)
Sickness and disability	*Public*: awareness programs (e.g., HIV/AIDS), public health programs, policies on labor market integration for the sick/disabled, regulations on safety at work and at home *Private formal:* safety regulations in companies *Private informal*: sickness preventive behavior	*Public*: health insurance, disability pension insurance, care allowances, public health facilities, savings accounts *Private formal*: private insurance for health/disability, insurance against accidents *Private informal*: savings, building social capital	*Public*: support in cash or kind for sick and household members, provision of emergency centers, hospitals, social assistance *Private formal*: hospitals *Private informal*: providing care, exchange of labor between households, reliance on children, taking credit, dis-saving
Old age	*Public*: anti-discrimination regulation, regulatory framework for private pension programs *Private informal*: sickness preventive behavior	*Public*: Pension insurance, savings accounts *Private formal*: private pension plans *Private informal*: savings, building social capital	*Public*: minimum pension payments, social assistance *Private formal*: providing credit *Private informal*: providing care, reliance on children, taking credit, dis-saving
Survivors	*Public*: regulation on inheritance (anti-discrimination of women and children), property rights for women	*Public*: survivors' insurance, savings accounts *Private formal*: private survivors' insurance, savings *Private informal*: employment of female partner, building social capital	*Public*: social assistance *Private formal*: providing credit *Private informal*: reliance on children, taking credit, dis-saving

Family and children	*Public*: Regulations against child labor; against gender discrimination; equal rights regulations; education, school feeding programs, school fee waivers, scholarships, etc,	*Public*: Family allowances, savings accounts *Private formal*: private insurance for life, *Private informal*: saving	*Public:* food stamps, food rations, social assistance, school feeding programs, *Private formal*: providing credit *Private informal*: child fostering, reliance on children, taking credit, dis-saving
Unemployment	*Public*: employment regulation (hire and fire policies, minimum wage regulations, etc.), job training programs *Private formal*: job training programs *Private informal*: migration, education	*Public*: unemployment insurance, job search programs *Private formal*: providing saving plans *Private informal*: saving	*Public*: emergency relief benefits, job search assistance, social assistance *Private formal*: providing credit *Private informal*: reliance on children, taking credit, dis-saving, migration
Housing	*Private formal*: regulation	*Public*: housing benefits *Private formal*: providing saving plans, microfinance *Private informal*: savings	*Public:* Housing subsidies, social assistance *Private formal*: providing credit *Private informal*: reliance on children, taking credit, dis-saving
Other	…	…	…

Source: Authors

3. Indicators to monitor the adequacy and success of SP interventions

After having identified (and classified) SP interventions according to their functions, arrangements and risk management strategies, it needs to be assessed in how far they are meaningful, and successful, in (i) helping the poor better manage risk, and/or (ii) in providing help to the critically poor (see definition of SP, section 1.1). As has been discussed earlier, social protection attempts to not only cope with the symptoms of poverty (i.e., outcomes, see Graph 1), but also to address the causes of poverty (i.e., risk exposure and – ineffective – risk responses). Thus, an assessment of the adequacy and success of the existing SP framework requires to examine both, outcomes and risk exposure. A confrontation of these demand-side aspects with the existing supply of SP instruments (section 3.3) will allow to get a primary indication of the *overall effectiveness* of the SP system – and provide preliminary information on potential gaps and shortcomings of the existing system[13]. In what follows, we provide some proposals on how analysts might examine outcomes (section 3.1) and risks/risk exposure (section 3.2).

3.1 Monitoring the effectiveness of SP interventions in helping the critically poor: assessment of outcomes

One of the objectives of SP is to help the critically poor (see section 1.1). This implies that SP interventions have to improve adverse outcomes, such as to lower poverty, to lower unemployment rates, to decrease child labor, improve the situation of the disabled, etc. In order to do so, and thus to monitor the overall success of current SP interventions, indicators that reflect current levels of these outcomes have to be identified, and routinely measured.

Analysts entrusted with this part of the assessment thus have to select – in close collaboration with country- and sector experts – outcome indicators that are meaningful with respect to country-specifics (see also section 4.1). Many examples of relevant indicators are available, such as the core outcome indicators of the international development goals, which are derived from a series of UN conferences held in the 1990s. They reflect key aspects of economic and social well-being and environmental sustainability (see Box 8). The advantage of these indicators is not only that they are internationally accepted, but also that data is readily available for most of our client countries (e.g., in various ESW publications, the WDI database).

[13] As has been discussed previously (see section 1.1), risks and risk management comprise many areas which often can not be (solely or at all) addressed by SP interventions. For example, many inter-linkages exist between the social sectors which require a joint analysis of all these sectors to meaningful assess the progress of the risk management system in a country (see Canagarajah *et al*., 2001).

Box 8: Measuring outcomes - Core indicators derived from the international development goals

Indicators
Economic well-being
1. Incidence of extreme poverty: Population below $1 per day
2. Poverty gap ratio: Incidence times depth of poverty
3. Inequality: Poorest fifth's share of national consumption
4. Child malnutrition: Prevalence of underweight under 5s
Social development
5. Net enrolment in primary education
6. Completion of 4th grade of primary education
7. Literacy rate of 15 to 24 year-olds
8. Ratio of girls to boys in primary and secondary education
9. Ratio of literate females to males (15 to 24 year-olds)
10. Infant mortality rate
11. Under 5 mortality rate
12. Maternal mortality rate
13. Births attended by skilled health personnel
14. Contraceptive prevalence rate
15. HIV prevalence in 15 to 24 year-old pregnant women
Environmental sustainability and regeneration
16. Countries with effective processes for sustainable development
17. Population with (sustainable) access to safe water
18. Forest area as a % of national surface area
19. Biodiversity: Land area protected
20. Energy efficiency: GDP per unit of energy use
21. Carbon dioxide emissions (kg per PPP % of GDP)
General indicators
GNP per capita
Adult literacy rate
Total fertility rate
Life expectancy at birth
Aid as % of GNP
External debt as % of GNP
Investment as % of GDP
Trade as % of GDP

Source: based on the working set of core indicators derived from the international development goals, selected from the series of UN conferences held in the 1990s.

Coudouel *et al*. (2001a) elaborated SP specific outcome indicators that are presented in Box 9. Analysts can use these indicators as a starting point for their assessment. Clearly, the lists of outcome indicators provided in Boxes 8 and 9 are by no means comprehensive, but need to be adopted to the specifics of the countries assessed (as well as to constraints in terms of the data availability[14]). Ideally, all main stakeholders in the country

[14] The main drawback to this exercise will actually be the lack of relevant data on the desired indicators. Thus, in many instances it will be necessary to rely on second-best indicators or guesstimates based on suggestions of country- and sector-experts or country officials. Moreover, analysts have to make sure that the outcome indicators chosen are meaningful with regard to the country-specifics. For example, unemployment rate usually only covers those that have formally been employed in the formal sector, i.e., a small

should agree upon the country-specific indicators selected, as this provides the basis for a broadly accepted benchmark against which the effectiveness and success of SP interventions in a country can be examined over time.

Box 9: Outcome indicators in social protection

- Poverty headcount and depth, if possible disaggregate by rural/urban and, ideally, by different potentially vulnerable groups, including the elderly and widows
- Levels of chronic versus transient poverty (again disaggregated, even approximately, for different potentially vulnerable groups)
- Prevalence of seasonal hunger
- Distress sales of livestock or land
- Child malnutrition rates
- Unemployment rates and estimates of underemployment, capturing the level of formalization or informalization in the labor market (by age and gender)
- Primary-school dropout rate (for boys and girls)
- Incidence of child labor (percent of children who work, based on age and gender)
- Hours worked by children
- Labor market situation for vulnerable groups (youth, women)
- Estimated percent of children or families left vulnerable or destitute as a result of communicable diseases (indicators for AIDS, for example, might include number of infected, number of infirmities, estimated number of orphans)

Source: Coudouel *et al*., 2001a: Box 3, pg. 8

It is important to recognize that *final outcome indicators* (e.g., poverty rates) are often ill equipped for a sector analysis[15], as many factors that determine these outcomes are outside the realm of SP. For example, macroeconomic policies, political decisions, terms of trade shocks, natural disasters as well institutional and human capacities, etc. might counteract the impacts SP interventions have with regard to a certain outcome. For example, labor market policies targeted to enhance labor force participation in a country might have little impact as long as the country faces unstable economic conditions. In a situation of stable economic growth, however, they might be very effective. Thus, rather than measuring labor force participation, analysts might want to identify indicators that more closely reflect the outputs of specific SP policies or programs, e.g., participation rates in labor market training programs, proportions of women integrated in the labor market after attending retraining programs, etc.

Thus, the selection and measurement of *intermediate outcomes* (or: *program outputs*), rather than (or in addition to) final outcomes, might prove to be a more meaningful way of monitoring the overall adequacy of *social protection* interventions in helping the critically poor. Ideally, these intermediate outcome indicators (or: outputs) can be derived from the stated objectives of SP policies, from political priorities in SP, from the social development factors of the international development goals, etc.

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minority of workers in, for example, many African countries, which limits the significance of this indicator considerably.

[15] Empirical evidence for the weak links between sectoral programs and final outcomes has, for example, been provided for health (Filmer *et al*., 1998).

To provide but some examples of outcome and output indicators: While infant morality rate is an outcome indicator, the proportion of children immunized is an intermediate outcome indicator. Similarly, while enhancing education is a primary aim, which can be measured by a final outcome indicator, the proportion of children enrolled in first year schooling is an output indicator more closely linked to specific social programs. For further examples of intermediate and final outcome indicators, see Box 10.

Box 10: Examples of final and intermediate indicators

Goal	**Intermediate indicator** (input and output)	**Final indicator** (outcome and impact)
Reduce extreme poverty and expand economic opportunities for the poor.	• Expenditure on infrastructure • Expenditure on and number of beneficiaries of job training programs • Percentage of roads in good and fair condition	• Incidence of extreme poverty: percentage of population whose consumption falls below the poverty line • Poverty gap ratio • Income/expenditure of the poorest 20% of the population as a share of the total income/expenditure of the whole population • Unemployment/ underemployment rate • Percentage of the poor population with access to microcredit programs
Enhance the capabilities of poor men and women	• Expenditure on primary education as a share of national income • Expenditure on primary health care as a share of national income • Percentage of schools in good physical condition • Pupil-teacher ratio • Number of doctors per 100,000 inhabitants	• Literacy rates • Learning achievement • Dropout and repetition rates • Net enrollment in primary education • Percentage of population below the poverty line with access to health care facilities • Infant, child, and under-five mortality rate • Maternal mortality rate • Malnutrition rate
Reduce the vulnerability of the poor	• Expenditure on safety net programs • Percentage of poor households/ individuals receiving transfers from the government	• Variability of household consumption • Percentage of AIDS orphans protected

Source: Prennushi *et al*., 2001: Tab 1, pg. 7

To facilitate the conduct of this part of the exercise, and to allow for a systematic data collection over years, a template is provided in Annex 1 of this paper (see Template 4). Moreover, in section 4.2, when assessing SP programs in more detail, further information on the outputs of the program will have to be gathered.

3.2 Monitoring the effectiveness of SP interventions in helping the poor better manage risks: assessment of risk and risk exposure

In addition to helping the critically poor, SP interventions aim to help the poor better manage risks (see definition of SP, section 1.1.1). Thus, analysts entrusted with carrying out an analysis of the effectiveness of the SP system in a country have to take account of the risks people face. Downward shocks, together with the risk responses and the asset-base of households, are important causes of poverty (see Alwang *et al*., 2001; Heitzmann *et al*., 2001; Holzmann and Jørgensen, 2000; Alwang and Siegel, 1999).

As has been elaborated in the conceptual part of this paper (see section 1.1), every individual, household, community or country is exposed to risks. The poor often are ill equipped to respond to these risks which enhances their vulnerability to an adverse outcome caused by the risk. Enabling the poor to better respond to the risk (i.e., to better manage a risk) thus is a promising way of – over time – escaping poverty. However, improving risk management is also a means of sustainably preventing poverty of the non-poor.

However, what are the risks people face? In what follows, we provide a short guideline that will assist analysts carrying out this part of the SP expenditure, performance and finance review. It is based on a guideline for the conduct of a risk and vulnerability assessment recently elaborated in the World Bank (see Heitzmann *et al*., 2001). It is important to recognize that this part of the guideline usually does not form part of traditional PER work in the World Bank. Against the background of the definition of SP, and its conceptual background, the social risk management framework, this part of the analysis is vital though to understand the needs of the poor and their demand for risk management instruments, among them SP interventions (see section 2.1).

3.2.1 Identifying risks and their main characteristics

Analysts entrusted with the conduct of this work have to identify downside shocks, which are prevalent in a country. Various country reports will contain relevant information for such an inventory, and have to be examined (e.g., poverty assessments, social sector reports, risk assessments, etc.). If time and resources allow, additional data could be collected (e.g., by organizing focus group discussion at grassroot level, or by conducting interviews with key informants, see Bendokat and Tovo, 1999). In Annex 1 we provide a template that will assist analysts in taking stock of such risks (Template 5).

It is important that the inventory of risks – which is of course country-specific – is as complete as possible, and also includes risks that might receive little attention within the country itself, for example due to cultural or ideological reasons. For example, Bendokat and Tovo (1999:10f.) identify several risks that are "blind spots" in Togo, among them gender discrimination, which is basically perceived as the 'way things are', and not explicitly recognized as a risk that increases the vulnerability of women and children. Similarly, neither the Togolese nor the relevant authorities appear to realize the importance of the HIV/AIDS epidemic.

In addition to merely identifying risks that are prevalent in a country, it is important to gather some information on some of their basic characteristics, most notably their correlation, frequency and severity (see Template 5), as they determine the magnitude and likely impact of a risk, which have implications for the vulnerability of specific population groups in a country.

(i) Correlation of risks

One important characteristic of a risk is its *size*. Risks can be small, and only affect specific individuals or households. These so-called idiosyncratic risks (e.g., a non-epidemic health risk) are uncorrelated among individuals and/or regions. Risks that affect a group of households, an entire community (e.g., earthquakes, floods), the whole nation (e.g., economic crisis) or even several nations (e.g., a nuclear disaster, epidemic diseases) are called covariate risks; they are correlated among individuals and/or regions. Depending on their size, it is possible to distinguish between regional covariate, national covariate and international covariate shocks (see Box 11).

Box 11: Risky events – classified according to their degree of correlation

	Idiosyncratic risks	**Regional covariant risks**	**Nation-wide and international covariant risks**
Natural Risks		Rainfall Landslides Volcanic eruptions	Earthquakes Floods Droughts Strong Winds
Health Risks	Illness Injury / Accident Disability	Epidemic Famines	
Life-cycle Risks	Birth / Maternity Old-age Death		
Social Risks	Crime Domestic violence	Terrorism Gangs	Civil strife War Social upheaval
Economic Risks	Business Failure	Unemployment Harvest failure Resettlement	Output collapse Balance of payments Financial crisis Currency crisis Technology- or trade-induced terms of trade shocks
Political Risks		Ethnic discrimination Riots	Political default on social programs Coup d'état
Environmental Risks		Pollution Deforestation	Nuclear Disaster

Source: adopted from Holzmann and Jørgensen, 2000:12.

The size of a risk will co-determine which risk management instruments might be an appropriate response to a risk. For example, a risk that affects an entire region cannot be

managed through insurance only within the region. It would require risk pooling with areas which are not subject to the risk at the same time. The correlation of a risk will also allow to determine which actors are (or should be) involved in the management of the risk. For example, idiosyncratic risks, such as a flu, can well be managed by informal or market-based risk management instruments. Highly correlated risks, however, such as malaria or HIV/AIDS, tend to require involvement of governments or international organizations, as informal or market-based instruments tend to break down when facing such risks (Holzmann, 2001:4).

Holzmann and Jørgensen (2000:12) provide examples of risks classified by their degree of correlation (see Box 11 below). In Annex 2b, we provide an empirical example of such a "risk mapping exercise" carried out in Togo as part of an analysis to adopt a social protection strategy for the country (Bendokat and Tovo, 1999).

(ii) Severity of risks

In addition to the correlation of risks it is important to gather some information on their *severity*. This implies to estimate the impact a risk is likely to have in terms of the expected welfare loss. If the loss is likely to be high, or catastrophic, the risk is defined as highly severe. Contrary, if the expected loss is likely to be low, or non-catastrophic, the risk is characterized by a low severity. The expected *relative* loss determines whether a household is vulnerable to an (expected) outcome that comes from risk.

The expected relative welfare loss is a function of the asset base of a household, and the risk responses taken (see section 1.1.2). Households within a country tend to differ in both these dimensions, which explains the differences in outcomes – and vulnerabilities – of households. For example, the death of a breadwinner in one household with some wealth, relevant life insurance and other household members gainfully employed will have different relative welfare effects as compared to another household with a low asset base, in which the dead breadwinner was the only person generating household income and had no life insurance. While the first family might regard the cited risk as a highly severe one, the second family might only attribute a medium or low severity to the same risk. Thus, whether a risky event, such as a bad harvest, a lost job, an illness, etc. will push it into (or deeper into) poverty depends on its assets and risk responses (see also Siegel and Alwang, 1999).

Why is it important to collect information on the severity of risks? Differences in the severity of risks have implications for the adequate risk response, and the actors involved. Risks with a high severity, i.e., an outcome which is likely to be catastrophic, might require interventions from formal, public institutions maybe based on a high level of intervention (see Box 3) while the management of risks with (an on average) low severity might be left to informal or market-based actors.

Given the differences in assets and risk responses between households, estimating the severity of a risk for household is a complex task for an analyst. Ideally, they will provide some indication on which group of households are likely to be severely impacted by the

risk, and which households will not. This requires to take the asset base of household groups into account, to estimate the size of the expected welfare loss, and predict whether the loss will be large enough to push a household below a threshold (e.g., the poverty line) or not.

Alternatively, analysts can provide some indication of the severity of a risk with regard to an *average household*. A highly severe risk (e.g., a flooding, a severe illness, war, crimes, etc.) is then likely to increase the vulnerability of *households on average*, a risk with low severity (e.g., catching a flu) will not have such consequences (even though many poor households will experience a relatively high welfare loss).

Estimations on the likely impact of a risk, i.e., its degree of severity, can be derived from previous experiences with the risk (and, for example, be extracted from country reports, and be based on the knowledge of country experts, NGOs, etc.). Highly severe risks can also be identified based on the basis of the perceptions of the inhabitants themselves, even though they are likely to focus on idiosyncratic risks (such as the death of a family member, unemployment or disease), while they are usually less aware of covariant risks (Bendokat and Tovo, 1999).

(iii) Frequency of the risk

In addition to the correlation and severity of risks, their *frequency* is relevant to understand the vulnerability of households to risks. Thus, researchers have to gather information for each risk on whether it is a repeated or a single event[16]. For example, is an earthquake in Nicaragua likely to be a single event, or does it happen more often? Information on the frequency of a risk (which can be low, medium or high), can be derived from country reports and information (e.g., data on weather patterns, morbidity rates, unemployment statistics, etc.), and be based on information from country experts.

Ideally, in addition to examining the frequency of a shock, analysts might want to get some indication (or projection) of when and how often a shock is likely to hit, i.e., the timing of the risk (e.g., if there are droughts every summer, earthquakes on average every other year, etc.). For example, Malawi is vulnerable to periodic droughts leading to seasonal food shortages and related price increases of maize (Smith, 2001). Information like such should supplement the information collected by the researchers on the frequency of risks (see Template 5).

Why is it important to collect information on the frequency of the risk? Differences in terms of the frequency have repercussions on the choice of risk management strategies. For example, a single, covariate risky event, such as a flood, can largely be managed through risk coping; if the flood was a regular or repeated event, however, *ex ante* risk responses (e.g., building dams in Bangladesh to lower risk exposure) might be a more efficient way of responding to the risk. In-depth information on the frequency of shocks

[16] This distinction will only apply to non-permanent risks, such as natural risks or economic risks. Permanent risks, such as the HIV/AIDS epidemic, can not be classified according to this characteristic.

thus helps to understand what type of risk response might be more efficient, and in a dynamic perspective also more sustainable.

Each of the characteristics of a risk described above will co-determine the optimal risk response. For example, (covariate) risks with low frequency but highly severe welfare effects (catastrophic covariate risks, such as a civil war, which tend to require interventions from high levels, maybe international organizations) will demand different management strategies than risks with a high frequency, however low welfare effects (non-catastrophic risks, such as non-communicable diseases, which can largely be managed by use of informal instruments).

By way of the risk assessment conducted so far, it will be possible to provide a snapshot of current risks, and their characteristics. However, applying a time-period approach will expand the value of this exercise further. For example, in Ethiopia even the most optimistic scenario for declining fertility implies a substantial increase in its population base over the next 25 years, from the current estimate of 54 million to approximately 92 million in 2020 (World Bank, 1998). This demographic projection suggests that new needs with regard to social risks are likely to arise. Information like such on contextual factors will provide the information needed to understand the potential development of risks within a country, which determine the vulnerability and future needs of the population.

3.2.2 Measuring risk exposure

As has been discussed in the first part of the paper, risky events as such do not imply that households are exposed to them (see section 1.1). Rather, there is a distinct difference between risk and risk exposure, which is especially true with regard to idiosyncratic risks[17]. An individual's exposure (or: susceptibility) to risks depends on various factors such as the health and nutritional status, physical assets such as housing, infrastructure and household location, and individual behavior.

Thus, while identifying risks is important, measuring risk exposure, or the susceptibility to risks, is also critical if we are to understand vulnerability. This requires that analysts examine who (or: which part of the population) is actually exposed to the risks identified previously. For example, if unemployment is an economic risk in a country, what population group is likely to be exposed to unemployment?

While the conduct of such an exercise might seem quite straightforward with regard to region-wide or nation-wide covariate risks (a war, a flood or an earthquake will affect – however, not necessarily harm – a certain region and all its inhabitants), it is a more complex task with regard to idiosyncratic risks. How can be captured who is likely to be affected by unemployment? Or: how can be identified who is likely to be affected by crime or domestic violence? In what follows we discuss one possibility of measuring/estimating

[17] Covariate shocks are in general common (covariant) to all households in a group (e.g., all households in a specific region are exposed to an earthquake, or a flood – whether these events have any relevance for the single household is, however, a different question, see section 3.2.1).

risk exposure: by classifying risks according to life-cycle or population groups which are likely to be affected by the risks.

So far, analysts should have generated information on risks, their nature, their correlation, their severity and frequency (see section 3.2.1). One further classification of risks, i.e. the classification of risks by life-cycle groups (i.e. age groups) and/or by population groups, will help to determine risk exposure. The basic idea is to classify risks into age-groups (and/or population groups) in which they are most likely to occur. For example, unemployment will only affect adults in working age. Infant mortality is a risk that will affect infants, etc. (see Box 12 below for an example of Argentina, conducted as part of a study on managing social risks (World Bank, 2000a). Main risks have been classified according to age-groups, and – where such a classification was not feasible – a large "other risk" group; Annex 2c includes a similar example carried out for a study on social risks in the Dominican Republic).

Box 12: Main risks by age-group in Argentina

Age group	Main risks
0-5 years	• Stunted development
6-14 years	• Poor education quality (low human capital development)
15-24 years	• Low human capital development (education quality / attainment) • Unemployment / low wages • Inactivity (violence, substance abuse, etc.)
25-64 years	• Low income
Over 65 years	• Low income
Risks prevalent in the general population	• Poor health care • Poor housing / lack of basic infrastructure

Source: World Bank, 2000a:8

While the classification of risks by life-cycles has been empirically applied for social sector studies in several countries (e.g., Argentina (World Bank, 2000a), the Dominican Republic (World Bank, 2000b), Mexico (Hall and Arriagada, 2000) and Jamaica (Blank, 2001)), and adopted as part of the health, nutrition and population sector strategy (World Bank, 1997), it has several shortcomings with regard to assessing risks. For example, a classification of risks by life-cycles or age-groups suggests that risks within an age-group have similar consequences for all people affected. However, the management of risks depends very much on factors other than the age of a person at risk, e.g., on the family background, the existence of formal and informal risk management strategies, the gender of the person, etc. Also, risks might have consequences for others than the person exposed, e.g. the unemployment of one household member will have an impact on the welfare of all other household members (even though there can be age-specific consequences of one risk).

Moreover, while a classification of idiosyncratic risks into life-cycle groups is helpful to obtain some indication of which risk (directly) affects which age-groups, many risks do not comply with this simple structure (as has also been emphasized in the empirical studies mentioned above). Above all, covariate risks (e.g., floods, wars, earthquakes, etc.) affect individuals in general, independent of their age (even though different age-groups might be differently affected by such risks). Moreover, often risks are specific to population groups, e.g. women, the poor, the rural population, or ethnic minorities regardless of their age (e.g., discrimination of women, ethnic minorities, etc.). This suggests that in addition (or alternatively) to classifying risks according to life-cycles (e.g., risks related to old-age, to birth, etc.), analysts might want to also classify risks by population groups (e.g., gender-related risks, risks of ethnic minorities, risks related to urban/rural regions, poverty, etc.).

In Annex 1, we provide a template for the classification of risks according to age-groups and population groups (Template 6). Analysts are required to classify risks – whenever possible – accordingly.

A classification of risks by life-cycle groups and/or population groups will provide some insights on who is exposed to risks. A more refined way of measuring risk exposure is a complex task – especially with regard to idiosyncratic risks. Measuring risk exposure of covariate risks is less complicated, as researchers might identify and collect information on relevant indicators, such as the proportion of people threatened by a civil strive, a flooding, an earthquake, etc. (see Box 13 for some examples of such indicators). Often, however, risk exposure is difficult to express in terms of concrete indicators, and/or data on these indicators will be missing.

Box 13: Indicators of risk exposure for main covariate risks

	Indicators of risk exposure
Natural Risks e.g., rainfall, landslides, volcanic eruptions earthquakes, floods, droughts, strong winds	e.g., percent of population (or number of regions) exposed to specific natural or weather-related shocks
Health Risks e.g., epidemic, famines	e.g., prevalence of communicable diseases (such as AIDS), famines
Social Risks e.g., crime, domestic violence, terrorism, war, social upheaval	e.g., percent of population affected by war, violence, crime, or ethnic/class tensions
Economic Risks e.g., unemployment, harvest failure, business failure, resettlement, output collapse, balance of payments, financial crisis, currency crisis, technology- or trade-induced terms of trade shocks	e.g., index of chronic or transitory macroeconomic distress and / or poor macroeconomic performance, economic forecast indicators, etc.

Source: adopted from Coudouel *et al*., 2001a:7f.

Thus, also outcome indicators (see section 3.1) can be used as a proxy for risk exposure. For example, unemployment rate measures the proportion of people unemployed, rather than the proportion of people exposed to (future) unemployment. Nonetheless, outcomes

can provide some indication of risk exposure, especially, if the composition of those affected by the outcome is known. E.g., 5% of the Argentine population aged between 25 and 64 years belong to the indigenous population group. However, 36% of all unemployed in this age group belong to this population group (World Bank, 2000a). This suggests that indigenous people have been affected over-proportionally by unemployment, and maybe likely to be over-proportionately exposed to (future) risks leading to the loss of jobs[18].

3.3 The overall effectiveness of the SP system: Matching supply of and demand for interventions

As important as capturing the needs of the poor is to evaluate whether the interventions available are adequate and/or successful in (i) helping the critically poor, and/or in (ii) helping the poor better manage risks. This requires to contrast the supply of social protection interventions (see section 2) with demand-side aspects, which as we discussed earlier can be observed and derived through an analysis of outcomes (section 3.1) and risk exposure (section 3.2).

Recent studies have indicated that very few countries have information that help them to estimate the demand for various social services (see Box 14). However, if the dynamic nature of the demand for and supply of social services is not considered, (public) interventions might very well be inconsequential to people's needs.

Box 14: Demand Side Financing in Education

Demand side financing is a means by which governments and development partners have been trying to address the pressing issues in education delivery – namely access, equity and efficiency. This is because most current government education programs are substantially supply driven, and seldom give attention to the changing nature of demand. However, given the complexity in overhaul changes in government education programs most approaches which have been designed to address this problem have been piece meal and small scale. Mechanisms like vouchers, stipends, targeted bursaries, vouchers and community financing have been used to effectively channel funds to institutions on the basis of expressed demand. However, not all demand side financing programs have been successful in addressing the problems and have had their fair share of difficulties and problems in implementation (see Patrinos and Ariasingam, 1997, for a review of these programs across countries). But still these programs have been a main mechanism by which education programs have become more demand oriented, decentralized, and they have increased access and improved targeting. The challenge for the future is to ensure that these programs become the basis of broader sector wide reforms which will ensure that good quality education is available to all at affordable costs to the individuals and the government.

Source: Canagarajah *et al*., 2001: Box 5, pg. 18

An example of how supply of and demand for SP interventions can be contrasted is provided in Box 15 below. Based on the 'mismatches' observed, analysts get a first indication of the weaknesses, but also the strengths, of a country's SP system.

[18] However, an alternative interpretation of the data suggests that indigenous people might be as likely as the rest of the population to be exposed to risks causing unemployment, but fail to properly manage these risks, and thus be more likely to actually lose their jobs than other population groups.

Two types of mismatches should be differentiated. First, countries might experience *gaps in coverage*. This implies that neither adverse outcomes nor risks are properly addressed by existing interventions[19].

Second, there might be *shortcomings in terms of the existing supply*. This implies that although interventions are available, and indeed address risks and/or adverse outcomes, the effects of these interventions are unsatisfactory. If this is the case, analysts do have to examine the sources of these shortcomings. Various factors can account for them: For example, population groups might be excluded from the access to services by law (e.g., if women are denied property rights, etc.). Such *absolute barriers of access* (see Heitzmann *et al*., 2001) are encountered, if only specific population groups are entitled to specific instruments. For example, in many countries, unemployment insurance is only available to those employed in the formal labor market, while all workers in the informal labor market are excluded. Similarly, many countries confine several rights to men only. For example, in Togo, women do not have equal rights to men, and are discriminated in terms of access to social services (Bendokat and Tovo, 1999:10).

However, instruments might also not be utilized for other reasons (e.g., lack of resources to pay insurance contributions, lack of information on how to protect against specific illnesses, exclusion of families from social networks, etc.). Such *relative barriers of access* to risk management instruments can be manifold. For example, some risk management instruments might not be available throughout the country, but only in specific regions. Hospitals, health centers or high schools often are only available in the urban parts of the country, making it difficult for the rural population to obtain relevant services. Also, the scarcity of assets can prevent households from utilizing certain instruments. For example, many households can not afford to pay insurance premiums, and thus can not acquire this type of instrument. In addition to financial assets, also other assets might play an important role (see Siegel and Alwang, 1999, for a discussion of tangible and intangible assets of households). Take information as an example: individuals who do not recognize HIV/AIDS as a risk, as is the case in many Sub-Saharan African countries, and/or do not know how to protect themselves against it, might not take relevant risk management instruments, even though they would be readily available.

To account for these differences in terms of access and utilization of available risk management instruments, analysts have to gather some information on which subgroups of the population (e.g., separated by men and women, formal and informal workers, urban and rural populations, ethnic groups, poor and non-poor) utilize which SP instruments. If possible, analysts should differentiate between absolute and relative barriers of access (see Template 7 in Annex 1).

[19] Of course, existing public interventions in SP could neither address adverse outcomes nor risks. It is important to consider such instruments, and to examine whether a reorientation of public resources to an alternative intervention (or a set of interventions) might prove to be a more efficient way of allocating scarce resources (such an analysis, of course, has to take account of the likely effects an abolishment of the intervention would have – maybe the program is successful in reducing a risk, or improving an otherwise adverse outcome).

In addition to questions of absolute and relative access barriers, *SP interventions might be inefficient* in terms of service delivery, administration, or the outcomes they produce, etc. Analysts have to provide some indication of the underlying source that manifests the problems in terms of mismatching supply of and demand for SP interventions. This information can then be used as a preliminary reference for the overall effectiveness of the existing SP system, and as a background information for the in-depth analysis of specific programs which follows in section 4.

Annex 2c contains an interesting country example from the Dominican Republic, in which the researchers adopted a similar approach to examine the gaps and shortcomings in terms of current interventions, and suggest options to cure them. They identified risks by age groups (i.e., a proxy measure for risk exposure) including broad "other risk" groups. In-depth information on the proportion of poor people exposed to these risks enhanced the content of the data provided. Then, the study focused on how to cover the gaps identified, and proposes both social protection and non-social protection measures as potential remedies. Similar studies have been carried out for Argentina (World Bank, 2000a), Mexico (Hall and Arriagada, 2000), as well as other countries (see Bendokat and Tovo (1999) for Togo, Blank (2001) for Jamaica etc.). The difficulty in terms of this exercise is for analysts to decide whether the gaps and shortcomings can be closed by SP interventions, or whether interventions from other sectors might be more apt and/or effective in this respect.

Box 15: Contrasting supply- and demand side aspects in regard to SP (Illustrative Example)

Risks and their characteristics	**Outcomes, risk exposure → demand**		**Risk management instruments → supply**		**Remedies to manage identified gaps and shortcomings**	
	# Affected	**Regions, groups exposed**	**SP**	**Non-SP**	**Non-SP**	**SP**
Economic crisis (frequency: irregular; impact: severe for the country)	Numbers (incl. proportion of population, poor, women, etc.)	Covariate risk: sectors, regions, workers in most-affected sectors	Public assistance, donor support, taking children out of school,	Public debt, reliance on international donors, trade deficit, etc.	Sound macroeconomic, finance, and trade policies	Unemployment insurance, active labor market programs, safety nets
Poor rain (frequency: regular; impact: severe)	Numbers (incl. proportion of population, poor, women, etc.)	Covariate risk: Regions, sectors; rainfed farmers; their suppliers and buyers	Public assistance, donor support, community support, food programs, reducing food intake, etc.	Migration, water programs, etc.	Irrigation, crop choices, agricultural inputs for next season	Labor intensive public works; nutrition programs
Landslides (frequency: regular; impact: non-severe)	Numbers (incl. proportion of population, poor, women, etc.)	Covariate risk: locations, residents in affected areas	Public assistance, donor support, reliance on family and community network	Migration, building dams, etc.	Land use regulations, insurance/savings	Safety nets
Illness (frequency: ---; impact: severe)	Numbers (incl. proportion of population, poor, women, etc.)	Idiosyncratic risk: household types: children, elderly, high risk groups	Public assistance, donor support, community support	Health insurance, immunization, awareness programs	Health care delivery system; health insurance	Nutrition programs for 0-5 year olds;
Retirement (frequency: ---; impact: severe)	Numbers (incl. proportion of population, poor, women, etc.)	Idiosyncratic risk: household types: elderly, especially from the formal sector; those without family	Public assistance, donor support, taking credit, savings	Saving plans etc.	Savings vehicles; labor market that facilitates part time employment	Pension systems

Source: partly adopted from Coudouel *et al*. , 2001a, Table 1, pg. 5.

4. Analyzing the Effectiveness and Efficiency of SP Interventions

After having identified the overall effectiveness of SP interventions in meeting the needs of the poor (section 3.3), this section is concerned with providing some guidance to evaluate specific SP policies and programs in more-depth. It is important to emphasize that this section does *not* include a comprehensive guideline for the conduct of a (public) expenditure review. The relevant rules, and best-practice examples for carrying out such an exercise can be found elsewhere (e.g., Pradhan, 1996, Chu and Hemming, 1992; see also the most useful World Bank intranetsite on public expenditures, with many links to country examples). Rather, this section will focus on issues and instruments that analysts might want to specifically consider when carrying out expenditure reviews for SP interventions (and indeed interventions from other social sectors as well).

4.1 The policy framework: an enabling environment?

As has been argued previously (see section 1.1.1), SP measures aim to help the poor manage risk, and provide help to the critically poor. However, successful (public) SP programs require fiscal, administrative and policy resources which are usually limited in poor countries. Thus, the budget size is among the factors that determine the strengths as well as the constraints of the existing SP system. This system, moreover, is shaped by administrative capacities, the quality of institutions, the political economy, beliefs, values and norms, etc. All these determinants account for the compatibility between the SP policy framework and the expenditure programs in a country, and explain the relative success of the overall SP system (see section 3.3).

Thus, information on these aspects is relevant to understand the policy framework in which SP program operate. Information on these contextual factors usually form part of social sector (and other) reviews (see for example, Blank, 2001; World Bank, 2000a; World Bank, 2000b; World Bank, 1998) and also have to be considered as part of a comprehensive SP expenditure, performance and finance review. Relevant information on the policy framework is included in country reports from several international and donor organizations, university publications, etc. Analysts might also want to carry out (semi-structured) interviews with key stakeholders in the country (e.g., political decision-makers, NGOs, etc.).

Information that analysts might want to include in such an overview range from information on the general (macro-)economic situation of a country (e.g., GDP per capita, GDP growth *per annum*, labor market situation, etc.), socio-economic aspects (e.g., proportions and composition of the poor, poverty trends over time, etc.), main values and traditions prevalent in a country, and relevant for SP (e.g., the role of women in society, the role of the public sector, etc.), as well as the policy and regulatory framework implemented for SP, including information on the quality of the institutional framework, organizational capacities and quality (e.g., the budget discipline, budget cycle-decision making instruments, human and technical capacities in terms of monitoring and evaluating expenditures, etc.). Some examples of information needs are provided below (section

4.1.1 to 4.1.2). Depending on time and resources, analysts might want to enlarge this part of the exercise, though.

4.1.1 Macro-economic and socio-economic aspects

With regard to the economic and macro-economic environment, analysts might want to present data on key macroeconomic indicators, e.g., GDP per capita, GDP growth, inflation data, etc. and provide comparisons with similar countries to identify the relative economic status (and likely development) of a country. In terms of (public) expenditures, analysts should identify the GDP proportion of SP expenditures, ideally classified into functions and/or risk management strategy for which the expenditures occurred. A thorough evaluation of SP spending per capita, both in absolute and relative terms will provide information that helps to understand priorities and constraints for SP.

In terms of socio-economic characteristics, analysts might want to include the proportion and composition of poor people in the country, poverty trends, as well as key indicators on the socio-economic situation (e.g., infant mortality rate, prevalence of HIV/AIDS, etc.) in order to identify country-specific strengths and weaknesses in this respect (see also Box 8 for relevant outcome indicators derived from the IDG that can be relevant in this respect). Analysts might also want to recapitulate what the most vulnerable groups are in this respect (see also section 3.2), and provide some indication of their role in society, and explanation for their disadvantages status. In this context, analysts might also want to provide some indication of the prevalent value, tradition and belief system. Issues that analysts might want to consider in this respect, are, for example, the perception of the population in terms of public versus private partnership, the role of families and communities, the role of children and their tasks in the household, etc. Qualitative instruments, such as focus group discussions, interviews with NGOs, etc. are useful instruments that might be helpful in this respect (see also section 4.2.7).

4.1.2 Assessing the institutional capacities

Often, services in countries are not delivered effectively because of a lack of institutional and administrative capacity. This has important implications for the regulating, coordinating, monitoring and evaluating roles that also essential for SP and other programs and interventions. Various studies have highlighted the weak institutional structure as the main concern in improving the quality and performance of social sector interventions and related outcomes. Studies on health and education have been useful in addressing the institutional capacity issues (Pradhan, 1996). Similar studies need to be conducted for SP. The recent ILO Social Budget Model provides a good basis to start inquiry on this rather broad and complex issue (Scholz *et al*., 2000, on the ILO model of social budgeting). Moreover, the SP Chapter for the Poverty Reduction Strategy Papers includes a discussion of institutional delivery mechanisms (Coudouel 2001b: 5ff.) that analysts might want to consult.

One example of the quality of the institutional framework is the capacity of countries to stick to their budget cycle. In most countries the annual budget process has become a me-

chanical exercise to allocate funds without being based on clear policy choices, priorities, or strategic objectives. The sector ministry budget preparation process is trivialized by the fact that the ministry of finance has final approval on which programs/expenditures are given priority with very little knowledge from a technical point of view. The absence of an effective decision-making process, and the missing links between policy-making, policy-planning and the budget exercise, leads to mismatches between what is promised through government policies and what is actually affordable (World Bank, 1998). Thus, policy, planning, and the budget cycle need to be more closely linked to each other to achieve the desired outcomes (see, for example, Scholz *et al.*, 2000), and to help address governance and public sector performance concerns. Up until now, however, only little systematic progress has been made, hampering the effective delivery of social sector services through budgets.

4.1.3 Assessing the policy and regulatory framework

Analysts are also required to gather information on the policy and regulatory framework that is relevant for SP interventions. It is important to emphasize that policies and regulations do not only shape SP programs and projects, they are in themselves an important part of the SP system, and – in a broader aspect – in the system of risk management. For example, the existence and enforcement of labor market policies and regulations are important means to reduce or prevent many risks. A prohibition of child labor prevents – if it is enforced – risks related to harmful labor for children. Regulations in terms of safety at work is able to prevent many work-related accidents, etc. Also minimum wage regulations, or hiring and firing rules, as well as regulation on severance pay regulate the labor market, and reduce or postpone income or job loss (see also Coudouel *et al.*, 2001a: 11ff.).

Thus, analysts are required to provide some information on the policy and regulatory framework, including information on the enforcement of regulations, sanctions, etc. Also a reconsideration of the existing value and belief system (see section 4.1.1) will be helpful in this respect, not least to understand the ‘rationale’ of the existing framework. For example, the Togolese perceive gender discrimination as the ‘way things are’, which explains why hardly any SP interventions focus on women specifically (Bendokat and Tovo, 1999:10f).

4.2 SP interventions: examining their effectiveness and efficiency

After having identified the country-specific policy framework (section 4.1), SP programs need to be evaluated in more detail in terms of their effectiveness, efficiency, and finance issues. Based on such information, countries will be better able to prioritize expenditures and interventions which is an important need in SP.

According to Pradhan (1996:6), “a program as a set of expenditures within or across a sector with relatively homogeneous benefits constitutes a useful unit of analysis”. Given the plethora of SP programs that operate in countries, it will be feasible to focus on a sub-

set of these for more in-depth analysis. Programs that receive substantial budget allocations, that affect large groups of people, that focus specifically on vulnerable population groups, or that appear to address important, largely unmet needs/demands of the poor could be considered in this respect. A mapping exercise of programs according to these (and other) aspects will facilitate the selection of the subset of programs, analysts might want to examine in more-depth (see Box 16 for an illustrative example of such a mapping exercise). It is important to stress once again that this assessment should not only focus on programs that are publicly provided or financed, but also on (at least important) private programs.

Box 16: Mapping of SP programs – An illustrative example

On what? Objectives	**For whom?** Beneficiaries	**How successful?** Outputs	**How much?** Expenditures	**By whom?** Providers & Financiers
Identify objectives of SP programs e.g., feed people, insure employed, decrease housing costs	*Who are the targeted beneficiaries of the programs*; e.g., the poor, women, children, rural population, the disabled, the elderly, etc.	*Identify outputs generated by each of the program*, e.g., no. of people fed through food programs, no. of people insured by unemployment insurance, no. of people who received housing benefits, etc.	*Identify expenditures* *absolute*: total expenditures *relative*: program expenditures as % of GDP; program expenditures as % of total SP expenditures	*Identify who provides and finances (which part of) the programs* *ad provision*: e.g., individuals/ households, communities, NGOs, donors, international organizations, national, state, local governments *ad financing:* Proportion of total expenditures by financiers

Source: Authors

Depending on the selection of programs for an in-depth examination, analysts will want to quickly assess what information is readily available. Data from several sources, e.g., budgets, administrative statistics, expert opinions of officials and informed critics of the interventions, household survey data, and data of other surveys might be appropriate for the examination (Coudouel *et al.*, 2001a: 9f). The main problem analysts will encounter, however, is a lack of relevant information and data. In this case, they are required to document the information needs, which will provide grounds for policymakers to create mechanisms to ensure that adequate data will be available for future, ongoing or periodic assessments.

While both public and private programs could form part of the assessment (as far as existing data will allow to do so), public interventions have to be examined in terms of their rationale (see also section 1.2). Fozzard *et al*. (2001: 20ff) provide some examples of mechanisms that help to identify market failures and equity concerns that public program intend to address (see also Devarajan *et al*., 1996, Pradhan, 1996). Many countries al-

ready have adopted a review plan that helps them to systematically, and over time assess the rationale of public interventions (Fozzard *et al*., 2001).

4.2.1 Time-frame of the analysis

One aspect that becomes particularly relevant with regard to SP (as well as other social sectors) is the time-period analysts will take into consideration to review programs. Many SP interventions both from the private sectors and the public sector are long-term in duration[20]. For example, pension programs are often reflected by high cumulative expenditures (see, for example, Holzmann *et al*., 2001, on the implicit pension debt). Moreover, expenditures for long-term programs often accrue different levels of costs at different periods of time. The expenditures within one fiscal year thus can only be understood, if the costs of previous or future budgets are also taken into account.

Nonetheless, for pragmatic reasons expenditure reviews usually only take a specified short-term period into account, most notably one fiscal year. This artificial snapshot might constrain the quality of a SP review considerably. Thus, it is crucial that analysts include – as far as possible – information from more than one fiscal year in their review (*t, t-1, t-2*) of SP expenditures – as is common procedure in the PER work of the World Bank[21] (see Pradhan, 1996). Also a projection of future expenditures (in period *t+1*, etc.) would enhance the validity of the review, and provide preliminary information on the (fiscal) sustainability of SP programs.

Box 17: Tools for an analysis of SP programs

- assessment of the economic classification of expenditures
- public expenditure tracking surveys
- cost-effectiveness analysis
- cost-benefit analysis
- benefit-incidence analysis / average and marginal benefit incidence analysis of SP expenditures
- ERR, IRR, or cost-benefit analysis of SP expenditures by category
- taxonomy of financing social protection
- beneficiary assessments and qualitative participatory studies, etc.

In what follows, some specific expenditure analysis tools (see Box 17) are presented that might assist analysts in reviewing SP programs. In general, instruments that are used for traditional PERs (see, for example Pradhan, 1996) can also be used for the SP sector, and will not be discussed in detail here. Rather, we will focus on instruments and approaches that might be helpful with regard to the specifics of SP (see also Coudouel *et al*., 2001a).

[20] This long-term duration of many SP programs is also one of the reasons that the links between expenditures and (final) outcomes are disguised (see also section 3.1).

[21] Not least against the background of long-term programs, the introduction of medium-term expenditure frameworks (MTEF) has become a common request in the conduct of public expenditures reviews in the Bank (see World Bank, 2001b). The establishment of MTEFs allows for adopting a medium- to long-term perspective to budgeting in order to effectively link policies, plans and budgets (see Bevan, 2000, for an example on Uganda). This approach also stresses the need to understand the rules of the game that govern budget formulation and execution and the way institutions influence the choice and achievement of government objectives (World Bank, 2001b:4).

It is important to emphasize that no tool on its own is able to assists in evaluating all efficiency issues, rather a mixture of tools has to be applied, as some tools can deal with a subset of efficiency issues more effectively than others. Moreover, as has been mentioned, analysts do have to consult the traditional instruments used for the conduct of a public PER, which are not presented below[22].

Below we provide a brief description of each of these tools. Ideally, both quantitative as well as qualitative information ought to be gathered. It is essential that good-practice examples on each tool are built which are available from past sectoral public expenditure review exercises carried out by various countries in collaboration with the World Bank.

4.2.2 Assessment of the economic classification of expenditures

The GFS of the IMF allows for both a functional (see section 2.2.2) and an economic classification of expenditures. In general an economic classification identifies (i) the types of expenses incurred to produce goods and services, such as compensation of employees, and (ii) the types of transfer payments made, such as social benefits (see IMF, 2001). The latter category allows to get some indication of an important financing source of SP interventions, i.e., public transfers.

With regard to the first category, the economic classification of expenditures allows to get an impression of the proportion of capital versus recurrent expenditures[23]. Especially with regard to social services, the economic classification of expenditures suggests considerable challenges with regard to the sustainability of expenditures (see footnote 23, and chapters on health and education, in Pradhan, 1996: 51ff, as examples).

A cross-classification of both, the functional and economic classification allows to jointly analyze the level of service provision (primary/secondary in education or preventive/curative in health) and the economic type of the expenditures (wages/salaries, equipment etc.). Moreover, a thorough evaluation of the economic classification of public expenditures within each function will provide useful information on the financial sustainability of public sector programs and interventions both in the short-run as well as in the long-run (Pradhan, 1996).

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[22] This requirement also refers to best-practices of conducting PERs in a country, e.g., whether it should be a wholly in-house PER, a Bank-led PER, or a joint- or client-led PER, which are not considered here. There is extensive experience within the World Bank for all these types of public expenditure reviews (see for example the participatory PER for Vietnam, or the Uganda's client-led PER, etc., Gray *et al*., 2000a, 2000b).

[23] Capital expenditures cover payments for the purchase or production of new or existing goods with a life of more than one year, e.g., for bridges, roads, schools, health clinics, etc. Current or recurrent expenditures include wages and salaries, other goods and services (including non-wage operations and maintenance), interest payments, and subsidies and other current transfers. The following patterns of public under- and overspending are common across sectors: a bias toward new capital investments, the underfunding of non-wage operations and maintenance, and overstaffing including relatively high wage-costs (see Pradhan, 1996, 33ff.)

4.2.3 Public expenditure tracking surveys

Tracking surveys can be a very effective tool in understanding the inefficiencies of budgetary planning and delivery of services. In Uganda this tool was effectively used in the mid-1990s to address the hypothesis that actual service delivery was worse than budget allocations implied (see Box 18). Various other countries have implemented tracking surveys since, most notably with regard to health and education expenditures (e.g., see Canagarajah and Ye, 2001, for Ghana).

Box 18: The Uganda Education Tracking Survey

In 1996, surveys were carried out for health and education in Uganda. The purpose was to test the hypothesis that public budgeted and released funds do not reach the intended facilities and hence that outcomes cannot improve despite increases in spending. The survey findings strongly confirmed this hypothesis for education. It was found that on average only 30% of released funds reached primary schools, but this average was highly unrepresentative: At the median, 0% of the money reached primary schools. It was found that funds were mainly reallocated at district level. Unfortunately, it was not possible to obtain similar confirmation for health due to lack of data.

In response to the findings of the education survey, the Ministry of Finance implemented a number of key policy interventions. The key intervention was to provide users (schools and PTAs) with information about transfers of government funds to schools. In particular, the information on releases was published in the main newspapers and broadcast on radio. District administrations were also instructed to pay the school funds into school accounts instead of retaining funds in their own accounts. And finally the highly inefficient system of central procurement of supplies to schools was replaced by school-based procurement.

In early 2000, a second tracing study was carried out for primary schools in Uganda, which followed 4 individual monthly releases of funds from Ministry of Finance level down to some 400 primary schools. The study found that on average 90% of released funds now reached schools. More importantly, 80% of funds reached primary schools at the median. It is widely perceived that the key to achieving this tremendous improvement in funding to schools was the publication of information of entitlements to stakeholders.

With most of the money now reaching schools, the attention is shifting to trying to identify the factors, which account for the residual variation in receipts as well as the differences in cost efficiency across facilities.

Source: Canagarajah *et al*., 2001: Box 7, pg. 22f.

The potential reasons for delivery problems (see also Coudouel *et al*., 2001b: Technical Note 1.2) range from competing priorities at various levels of government to corruption and misuse of public funds. Tracking surveys provide a useful instrument in 'following' the money from the time it is released from the budget to the ultimate delivery of the intended service to the beneficiary, and in highlighting the bottlenecks in the system. Although these surveys are time-consuming and can be quite cumbersome to implement, they are an effective means of arriving at specific programs and policies which can rectify the problems in the existing system.

While tracking surveys thus examine whether resources actually reach the program they are supposed to finance, they do not allow to make any inferences with regard to the ef-

fectiveness of the programs. Thus, in what follows some proposals are made on how analysts might want to assess the effectiveness of SP programs[24].

4.2.4 Cost-effectiveness analysis and cost-benefit analysis

Traditionally, cost-effectiveness analysis compares the costs of different program options that attempt to achieve the same output. Based on this comparison, the least cost intervention is chosen as most cost-effective delivery mechanism. For example, governments have different possibilities of providing food to a specific target group. They can (i) provide price subsidies, (ii) issue means-tested food stamps, or (iii) organize that food rations are given away at public health centers. Analysts would have to calculate the unit costs of each of these different instruments (e.g., costs per meal delivered), and – based on this comparison – propose the most cost-effective instrument (Valadez and Bamberger, 1994).

In SP, "classic" cost-effectiveness analysis is limited to cases where the specific output indicator of programs is identical. SP programs, however, usually have a broad range of specific objectives for which outputs are difficult to specify (increase caloric intake, decrease the poverty headcount, lower unemployment rates). Also, the data required for a classic analysis are not likely to be available in quantitative form for all interventions to be evaluated.

Thus, a somewhat different practice can be more meaningful (see Coudouel *et al*., 2001a: 15f.): Rather than calculating the costs of the programs, different aspects of the programs could be examined, e.g., their sustainability, targeting, administrative costs, institutional structure, unintended effects, and constraints. Judgments can be made after systematically considering the information on each dimension for each program. In Annex 1 we provide a template with questions that help to explore these different dimension of the cost-effectiveness of SP programs (see Template 8).

The questions included in Template 8 were originally developed to evaluate public expenditure programs. They do apply, however, also for an analysis of public regulations and contribution-based social insurance programs (for a more detailed analysis of labor market regulations and social insurance programs, see Coudouel *et al*., 2001a: 11ff.), and for an analysis of private sector provision, and of informal private arrangements[25] – both of which should form part of a comprehensive SP expenditure, performance and finance review (see introduction to this paper, and section 1.1).

This diagnosis not only enables a summary judgment about which programs are more cost-effective than others, but it also yields information about how each intervention might be made more effective, and thus provides insights into priorities for reform. A

[24] The following section is largely derived from the Social Protection Chapter of the Poverty Reduction Strategy Papers, see Coudouel *et al*., 2001a: 15f.)

[25] The costs of private programs may not be to the government but to the individuals in the network that provides the transfer or insurance. For market-based provision of say, pensions, insurance for life, health, or property, or savings vehicles, issues of coverage and constraints may be particularly relevant.

country might, for example, discover that in its public works program, only 20 percent of the costs are for unskilled labor, which is well below the international standard (for best-practices, see Coudouel *et a*l., 2001b, Technical Annex 2). A change in the labor intensity of the works financed might increase the income available to the poor in the short run.

As has been argued above, classical cost-effectiveness analysis might not be an appropriate instrument to value benefits or quantify externalities in SP. However, standard cost benefit analysis is an important tool to assist policymakers in determining whether the social value of a particular intervention exceeds its social costs. It should be noted though that some benefits are difficult to measure – given the externalities generated by most SP programs and interventions. Some progress on this issue has been made in the context of social funds (Owen and van Domelan, 1998), and pensions through PROST toolkits (see Annex 3). However, a wider use of cost benefit analysis is necessary to increase the efficiency of public delivery of SP interventions.

4.2.5 Average and marginal benefit incidence analysis

Benefit incidence analysis is a common method used to infer the distributional impacts of intra-sectoral public expenditures (see Box 19). The average benefit incidence of public expenditure is the proportion of expenditures subsidizing completely or partially the utilization of a given service by households in a given income or expenditure quintile. The marginal incidence is the incremental increase in the share of expenditures going to a given quintile, with a change in spending on the program. Both these instruments have been found very useful in policy discussions with regard to social sector reforms in many countries in addition to unit cost analysis which has been very common in past studies (Castro-Leal *et al*., 1999; Lanjouw and Ravallion, 1999).

4.2.6 Taxonomy of financing social services

Any study on the efficiency of SP expenditures will be incomplete without a proper analysis of the sources of financing (see section 2.1). Preliminary analysis of financial sources of SP services (see Template 3) will have provided evidence of a mixed basket. For instance, individual contributions are very important for some programs in some countries, while in others it is donor funding that is necessary for sustaining provision of many services. In addition, government finance covers most of the overheads of social service provision in most countries. Some studies, however, have revealed substantial subsidies and cross subsidization of social services, some leading to perverse patterns of financing (Velez and Foster, 2000).

In this context, it is essential to reconsider who pays what part of total expenditures, and how this enables the financing of social service provision (see also Template 3). The mismatch between the needy, the poor, and the contributors is overwhelming to the extent that studies on efficiency and sustainability of financing social services need to pay closer attention to the sources of funding of different programs and agencies in social service delivery.

Box 19: Benefit Incidence Analysis in Education

Benefit incidence analysis is a powerful technique for assessing how efficiently public spending is targeted to the poor. The analysis links information provided by the public sector (estimated from the government's fiscal accounts) about the subsidy for different kinds of education with the distributional profile of utilization of public schools (obtained from households through a multipurpose survey such as the Living Standards Measurement Survey). A recent review of benefit incidence analysis in education by van de Walle and Nead (1995) concludes that, while education sector expenditures vary in their incidence according to the level of service, primary and secondary education are usually more pro-poor than university/higher education (see Table below). For instance, a review of 13 country studies indicates that, on average, only 10 percent of the subsidies for higher education went to the poorest 40% of the population, while 43% of subsidies for "all education" accrued to this income group.

Carrying out a benefit incidence analysis typically involves three basic steps:
→ Identify the distribution of student enrollment rates in public schools across population quintiles sorted by income level ranging from poor to rich
→ Estimate the unit subsidies for each level of schooling from the government finance data
→ Combine this data in an estimate of the incidence of per capita subsidies accruing to each quintile

Examples of benefit incidence analyses of education subsidies in selected countries

Country and Year	Poorest 20% of Population	Richest 20% of Population
Ghana (1992)	15	21
Côte d'Ivoire (1995)	13	35
Malawi (1994)	16	25
Kenya (1992)	17	21
Uganda (1992/3)	13	32

For a more detailed description on how to conduct benefit incidence analysis, see L. Demery's "*Benefit Incidence Analysis: Informing Public Choice*." A hands-on training module, "*Fiscal Analysis and Projections in Education*," also offers a step-by-step guide for benefit incidence analysis.* For a theoretical discussion on public spending and its effects on the poor, see van de Walle, "Public Spending and the Poor: Theory and Evidence."

Limitations of Benefit Incidence Analysis:

- The technique can only deal with the incidence of spending on publicly subsidized private goods.
- Unit costs do not always reflect values. They also reflect inefficiency in public provision. For example, a tracking study in Uganda found that only 38% of non-wage recurrent primary education spending actually reached the schools. Quality variations in services are not always reflected in unit costs.
- The costs of programs are inadequate proxies for benefits received, and benefit incidence studies typically do not take into account the total costs of expenditure programs, including administrative costs, participation costs of the poor and other behavioral responses.
- The analysis is long on problems but short on answers. It is not informative as to why households behave the way they do. Benefit incidence just takes the pattern of service use as given, which tells us little about what determines such behavior and what constrains households. For instance, even when the analysis points to increased allocation to primary-level services, it says little about how that money should be spent.

* Examples of Benefit Incidence Analysis in Education: Meerman, J. (1979). Public Expenditures in Malaysia: Who Benefits and Why? Selowsky, M. (1979). Who Benefits from Government Expenditures? A Case Study of Colombia. World Bank (1990). Indonesia: Poverty Assessment and Strategy Report, Report 8034-IND. The World Bank. Demery, L., J. Dayton, and K. Mehra (1996). The Incidence of Social Spending in Cote d'Ivoire, 1986-95. World Bank (1996). Vietnam Education Financing Sector Study, Chapter 5, Report 15925-VN.

One of the important efficiency issues which has been neglected in most studies is the impact of the timing and frequency of financing. They tend to be extremely irregular and unpredictable which has adverse effects on the quality and extent of service provision. In addition, analysts need to clearly understand which taxes are used for funding which programs/interventions and the rationale for funding through chosen sources. Unless these aspects are studied at greater detail we may find unsustainable financing practices leading to failure and limited coverage of social sector programs as is the case in many developing countries today.

4.2.7 Beneficiary assessment and participatory studies

PERs primarily focus on information on tangible items. However, there are some issues in the design and delivery of services that cannot be captured by quantitative data only, although they are equally important in evaluating the efficacy of a service delivery. In this context, undertaking beneficiary assessments can be useful in understanding the major issues highlighted by beneficiaries, how they are related to quantitative data, and how they might be better addressed. Indeed, the recent use of beneficiary assessments and participatory studies for policy and investment decisions is proving to be very useful (see for example, Amelga, 1994; Salmen, 1995; World Bank, 1995).

By way of a systematic consultation with project beneficiaries and other stakeholders, beneficiary assessments attempt to identify and design development activities, signal any potential constraints to their participation, and obtain feedback on reactions to an intervention during implementation. It is an investigation of the perceptions of a systematic sample of beneficiaries and other stakeholders to ensure that their concerns are heard and incorporated in programs and policy formulation. The general purposes of a beneficiary assessments are to undertake systematic listening, which "gives voice" to poor and other hard-to-reach beneficiaries, highlighting constraints to beneficiary participation, and to obtain feedback on interventions.

Three data collection techniques are used within this qualitative method of investigation: (i) in-depth conversational interviewing around key themes or topics (which can be carried out with individual beneficiaries or with groups in urban or rural settings), (ii) focus group discussions, and (iii) direct observation and participant observation (in which the investigator lives in the community for a short time). Although some innovative studies have been done carried out for health and education, they need to be extended further to cover also SP operations (Robb, 2000). A manual for social funds is included in Salmen, 1999, best-practices of beneficiary assessments in the World Bank in Salmen, 2001.

5. Concluding remarks: The way forward

The framework for a comprehensive SP expenditure, performance and finance review proposed here is built on two main rationales (section 1): the social risk management framework, which essentially argues to broaden the perspective of SP expenditures. SP is an investment rather than a cost to society, and should both help the poor escape poverty, and prevent (future) poverty. The vulnerability people face in this respect is in general the result of risks they face, and their inability to manage these risks. The role of the public sector in risk management, and thus also in SP, is crucial. However, given the scarcity of public resources, allocation decisions have to be made – based on some rationales for public intervention, which have been summarized in this paper.

The simple guidance proposed here to carry out a SP expenditure, performance and finance review is essentially a blown-up version of the World Bank's PER work. It differs in some important aspects though: first, the significance of private formal and informal activities in SP has been discussed, and an argument has been made to include them in a SP review (section 2). Secondly, it has been argued that traditionally PER work focuses on supply-side issues, while largely neglecting the demand for interventions. Thus, we have proposed some ways on how analysts might want to identify the demand for SP interventions, and contrast this information with the existing supply to detect gaps and mismatches (section 3). Finally, this paper provided some guidance on how to assess SP interventions: in addition to implementing traditional PER instruments which have not been discussed in detail in this paper, alternative instruments, such as tracking surveys, and beneficiary assessments, might be particularly relevant in a social protection context, and these methods have been discussed (see section 4).

We recognize the urgent need to build some pilot case studies around the framework provided here to establish some practical suggestions and ground rules of implementation. These can be more useful in carrying out a SP expenditure, performance and finance review than the current framework itself is. Thus, we strongly recommend to carry out some pilot studies in a few countries to test its feasibility and to learn about its usefulness. A sequential approach is most likely to be successful: analysts entrusted with carrying out the review would start with an assessment of main (public and private) SP programs before deciding on selective deepening of analysis and follow-ups. Moreover, it is suggested that the review begins with initial qualitative assessments and memorandum items before deciding on resource-consuming quantitative follow-ups.

Annex 1: Templates

Template 1: Inventory of SP interventions (provision) available in a country

	Available?	
Public Programs and Policies	**yes**	**no**
Food for work or labor-intensive public works		
Social funds		
Agricultural input subsidies (prices or vouchers)		
Energy subsidies		
Housing subsidies		
Food rations		
Food stamps		
School feeding programs		
School fee waivers or scholarships		
Employment legislation		
e.g., hiring and firing rules (incl. severance)		
e.g., contracting for labor		
e.g., minimum wage regulations		
Job search assistance		
Unemployment insurance		
Job retraining programs		
Integrated savings account		
Health insurance		
Needs-based cash social assistance		
Old age insurance		
Disability insurance		
Survivors insurance		
Noncontributory pension programs		
Regulatory framework for private pension programs		
Other:		
Market-Based Arrangements	**yes**	**no**
Savings or credit from commercial outlets or NGOs		
Crop insurance		
Property insurance		
Private pension plans		
Private insurance for health and/or disability		
Private insurance for life		
Other:		
Informal Arrangements	**yes**	**no**
Exchange of labor (for farming, construction, etc.) between households		
Transfer of cash, food, livestock between households		
Child fostering		
Reliance on children		
Dis-saving—selling assets, livestock, farm equipment, jewelry, drawing down savings		
Migration		
Tied labor		
Share cropping		
Savings or insurance associations or societies – roscas, tontines, burial societies		
Other:		

Source: adopted from Coudouel *et al*., 2001a: Box 4, pg. 9f.

Template 2: Inventory of public SP interventions (provision) by level of government

		Provided by		
Public Programs and Policies	**Available? yes no**	*Local gov-ernment*	*Regional/ state gov.*	*National gov.*
Food for work/labor-intensive public works				
Social funds				
Agricult. input subsidies (prices/vouchers)				
Energy subsidies				
Housing subsidies				
Food rations				
Food stamps				
School feeding programs				
School fee waivers or scholarships				
Employment legislation				
e.g., hiring / firing rules (incl. severance)				
e.g., contracting for labor				
e.g., minimum wage regulations				
Job search assistance				
Unemployment insurance				
Job retraining programs				
Integrated savings account				
Health insurance				
Needs-based cash social assistance				
Old age insurance				
Disability insurance				
Survivors insurance				
Noncontributory pension programs				
Reg. framework for priv. pension programs				
Other:				

Source: adopted from Coudouel *et al*., 2001a: Box 4, pg. 9f.

Template 3: Inventory of social protection intervention (finance) by source of origin

		*Financing by source of origin**						
	Available?	**Public sector**			**Private sector**			**Rest of the World**
Public Programs and Policies	*yes no*	*Local*	*Regional*	*National*	*corporations*	*NGOs*	*Households*	
Food for work/labor-intensive public works								
Social funds								
Agricultural input subsidies								
Energy subsidies								
Housing subsidies								
Food rations								
Food stamps								
School feeding programs								
School fee waivers or scholarships								
Employment legislation								
e.g., hiring and firing rules								
e.g., contracting for labor								
e.g., minimum wage regulations								
Job search assistance								
Unemployment insurance								
Job retraining programs								
Integrated savings account								
Health insurance								
Needs-based cash social assistance								
Old age insurance								
Disability insurance								
Survivors insurance								
Noncontributory pension programs								
Reg. framework for private pensions								
Other:								
Market-Based Arrangements	*yes no*	*Local*	*Regional*	*National*	*corporations*	*NGOs*	*Households*	*Rest of World*
Savings/credit from comm. outlets / NGOs								
Crop insurance								
Property insurance								

Private pension plans								
Private insurance for health / disability								
Private insurance for life								
Other:								
Informal Arrangements	*yes no*	*Local*	*Regional*	*National*	*corporations*	*NGOs*	*Households*	*Rest of World*
Exchange of labor between households								
Transfer of cash, food, livestock betw. hhs								
Child fostering								
Reliance on children								
Dis-saving								
Migration								
Tied labor								
Share cropping								
Savings or insurance associations								
Other:								

* all interventions that are financed by more than one financier (e.g., social services are financed by the public sector and households), require analysts to provide some indication of the proportion financed by each financier (e.g., 50% public sector and 50% households, etc.).

Template 4: Outcome indicators relevant for SP interventions

Outcome indicators	Estimate for country
Poverty headcount - disaggregated by rural/urban and other groups (women/men, vulnerable groups)	
Poverty depth - disaggregated by rural/urban and other groups (women/men, vulnerable groups)	
Levels of chronic poverty - disaggregated by rural/urban and other groups (women/men, vulnerable groups)	
Levels of transient poverty - disaggregated by rural/urban and other groups (women/men, vulnerable groups)	
Prevalence of seasonal hunger	
Distress sales of livestock	
Distress sales of land	
Child malnutrition rates	
Unemployment rates and estimates of underemployment - disaggregated by rural/urban and other groups (women/men, vulnerable, age)	
Estimation of underemployment - disaggregated by rural/urban and other groups (women/men, vulnerable, age)	
Estimation of formalization of labor market - disaggregated by rural/urban and other groups (women/men, vulnerable, age)	
Estimation of informalization of labor market - disaggregated by rural/urban and other groups (women/men, vulnerable, age)	
Primary-school dropout rate - disaggregated by gender	
Incidence of child labor (% of children working both within and outside the hh) -disaggregated by child labor inside and outside hh/farm; gender	
Hours worked by children (both within and outside the hh) - disaggregated by child labor inside and outside hh/farm; gender	
Labor market situation for vulnerable groups - disaggregated for youth, women, elderly	
Estimated percent of children or families left vulnerable or destitute as a result of communicable diseases (indicators for AIDS, for example, might include number of infected, number of infirmities, estimated number of orphans)	
Other:	

Source: adopted from Coudouel *et al*., 2001a: Box 3, pg. 8.

Template 5: Identification of risks and their basic characteristics in a country

		Correlation			Severity*			Frequency **		
	Prevalent?	**Idiosyn-cratic**	**Regional covariant**	**National or intern. covariant**	**high**	**medium**	**low**	**high**	**medium**	**low**
Natural Risks	**Yes No**									
Heavy Rainfall										
Landslides										
Volcanic eruptions										
Earthquakes										
Floods										
Droughts										
Strong Winds										
Other natural risks										
Health Risks	**Yes No**									
Illness (e.g., AIDS)										
Injury										
Disability										
Epidemic (e.g., Malaria)										
Famines										
Other health risks										
Life-cycle Risks	**Yes No**									
Birth / Maternity										
Old-age										
Death										
Other life-cycle risks										
Social Risks	**Yes No**									
Crime										
Domestic violence										
Terrorism										
Gangs										
Civil strife										
War										

Social upheaval										
Other social risks										
Economic Risks	**Yes No**									
Unemployment										
Harvest failure										
Business Failure										
Resettlement										
Output collapse										
Balance of payments										
Financial crisis										
Currency crisis										
Terms of trade shocks										
Other economic risks										
Political Risks	**Yes No**									
Discrimination										
Riots										
Political default										
Coup d'état										
Other political risks										
Environmental Risks	**Yes No**									
Pollution										
Deforestation										
Nuclear Disaster										
Other environmental risks										

Source: adopted from Heitzmann et al., 2001: Annex 1 Template 1

*Ad severity

- provide separate templates on the severity of risks by population groups (e.g. poor/non-poor, men/women, rural/urban, etc. (see Template 6).

**Ad frequency

- how often does the event occur on average? (e.g., once a year, every other fall, etc.).
- when is it likely to strike next? (e.g. every summer, in about five years, not known, etc.).

Template 6: Classifying risks by age-groups and population groups

	Age groups								Population group							
Natural Risks	Till birth	0-3	4-5	6-11	12-18	19-24	25-64	65+	all	poor	non-poor	women	men	urban	local	other
Heavy Rainfall																
Landslides																
Volcanic eruptions																
Earthquakes																
Floods																
Droughts																
Strong Winds																
Other natural risks																
Health Risks	Till birth	0-3	4-5	6-11	12-18	19-24	25-64	65+	all	poor	non-poor	women	men	urban	local	other
Illness (e.g., AIDS)																
Injury																
Disability																
Epidemic (e.g., Malaria)																
Famines																
Other health risks																
Life-cycle Risks	Till birth	0-3	4-5	6-11	12-18	19-24	25-64	65+	all	poor	non-poor	women	men	urban	local	other
Birth / Maternity																
Old-age																
Death																
Other life-cycle risks																
Social Risks	Till birth	0-3	4-5	6-11	12-18	19-24	25-64	65+	all	poor	non-poor	women	men	urban	local	other
Crime																
Domestic violence																
Terrorism																
Gangs																
Civil strife																

War																
Social upheaval																
Other social risks																
Economic Risks	Till birth	0-3	4-5	6-11	12-18	19-24	25-64	65+	all	poor	non-poor	women	men	urban	local	other
Unemployment																
Harvest failure																
Business Failure																
Resettlement																
Output collapse																
Balance of payments																
Financial crisis																
Currency crisis																
Techn.- or trade-induc. terms of trade shocks																
Other economic risks																
Political Risks	Till birth	0-3	4-5	6-11	12-18	19-24	25-64	65+	all	poor	non-poor	women	men	urban	local	other
Discrimination																
Riots																
Political default																
Coup d'état																
Other political risks																
Environmental Risks	Till birth	0-3	4-5	6-11	12-18	19-24	25-64	65+	all	poor	non-poor	women	men	urban	local	other
Pollution																
Deforestation																
Nuclear Disaster																
Other environmental risks																

Source: adopted from Heitzmann *et al.*, 2001: Annex 1 Template 2

Template 7: Availability of and access of population groups to SP instruments

		Population groups*							
		men	women	poor	non-poor	urban	rural	Other groups**	
Instruments	In general available ?	Access? absolute barriers	Access? relative barriers	Access? absolute barriers	Access? relative barriers	Access? absolute barriers	Access? relative barriers	Access? absolute barriers	Access? relative barriers
Public Programs and Policies	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No
Food for work/ public works									
Social funds									
Agricultural input subsidies									
Energy subsidies									
Housing subsidies									
Food rations									
Food stamps									
School feeding programs									
School fee waivers/scholarships									
Employment legislation									
e.g., hiring and firing rules									
e.g., contracting for labor									
e.g., minimum wage regul.									
Job search assistance									
Unemployment insurance									
Job retraining programs									
Integrated savings account									
Health insurance									
Needs-based cash soc. assist.									
Old age insurance									
Disability insurance									
Survivors insurance									
Noncontribut. pension program									
Regulatory framework for private pension									
Other:									

Market-Based Arrangements	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Savings/credit form NGOs …																
Crop insurance																
Property insurance																
Private pension plans																
Private insurance for health / disability																
Private insurance for life																
Other:																
Informal Arrangements	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Exchange of labor bw. hh																
Transfer of cash, food, livestock																
Child fostering																
Reliance on children																
Dis-saving																
Migration																
Tied labor																
Share cropping																
Savings/insurance associations																
Other:																

Source: adopted from Heitzmann *et al*., 2001: Annex 1 Template 4-6

* Analysts have to select population groups that are meaningful in the country context (i.e., vulnerable groups)

Template 8: Assessing the effectiveness of SP interventions – Checklist to examine their sustainability, targeting performance, administrative costs, institutional structure, incentive effects, and constraints

Sustainability
❑ What is the cost of each program as percent of gross domestic product (GDP)?
❑ What is the budget or expenditure allocation to each social protection program as a percent of total government expenditure and of social protection expenditure?
❑ What is the source of financing for each program (external or internal)? Are funds earmarked? Are there issues of intergovernmental financial flows?
❑ Is this source of finance likely to shrink or to grow over time in concert with need?
❑ Is the program in conflict with existing policy or legal or regulatory frameworks that will undermine its sustainability?
❑ What is the unit cost of the intervention (for example, to reduce the unemployment rate by 1 percentage point or to transfer $1 to the target group of a social assistance program)?
Targeting Performance
❑ What percent of targeted and non-targeted groups are covered by the program?
❑ What percent of the transfer is going to poor and to non-poor groups?
❑ What is the budget or expenditure allocation for each program by administrative unit, by rural or urban location, by ethnicity, by gender? How does this correspond to the distribution of poverty by these factors?
Administrative Costs
❑ What is the administrative cost as percent of the total cost?
❑ Is it so high as to be unreasonable?
❑ Would additional spending allow significant improvement in some aspect of the program and thereby improve its impact significantly?
❑ How do these costs compare across programs?
Institutional Structure
❑ Which ministries operate the programs and at what level (national, regional, community)?
❑ What type of institutional delivery mechanism is employed by the program (direct government delivery, government contracts with NGOs or private sector, social fund)?
❑ Is the overall capacity (staff, equipment, transport, administrative budget, procedures, information systems) adequate to implement the program well?
❑ Are there issues of coordination between agencies or levels of government?
❑ Do the institutions and their agents have incentives to act in ways that ensure that the program is well implemented?

❑ Does the institutional delivery system facilitate proper targeting?
❑ Are systems adequate for participation or client voice?
Incentive Effects
❑ What are sources and potential magnitudes of unintended effects at the program level? (These may vary by type of program. For example, in a public works program that uses private contractors, local contractors or supervisors may cut workers' wages below the program wage to cover costs of transporting workers to work sites or maintaining workers' sleeping facilities at work sites.)
❑ What are the program's unintended effects at the household or individual level with respect to work incentives, fertility, household formation? (In considering effects on work incentives, the nature of the labor market and the pattern of work of the poor in the country needs to be kept in mind.)
❑ What are potential sources of household or individual-level unintended effects (institutional delivery mechanisms, targeting mechanisms, level of transfer), and can they be minimized?
❑ What will be the likely impact on the level of private transfers and household coping arrangements?
Constraints
❑ Are there institutional, infrastructural, financial, or political constraints to effective program operation at present?
❑ Are there existing institutions to support operation of a new program? If not, can they be set up quickly?
❑ Do staff members have appropriate skills and training to implement programs?
❑ Are there funds to implement the program?
❑ Is there political will to sustain the program?
❑ Are there aspects of the program that may be constrained by cultural considerations (for example, for some countries, women doing heavy labor on public work sites)?
❑ Do households face any constraints in receiving the benefits of the programs (high transport cost, overcrowding, long waiting periods to receive benefits, language barriers with service providers)?

Source: Coudouel *et al*., 2001a: 16f.

ANNEX 2: Country Examples

Annex 2a: An example of a risk management assessment exercise: Arrangements for risk management in Togo

	Informal/ endoge	Informal/ exo	Formal/ p	Formal/ public
Prevention				
	• Strengthen human capital (community-paid teachers/schools) • Strengthen/protect revenues (anti-erosion measures, migration) • Occult/traditional rites	• Strengthen human capital (apprenticeship) • Traditional ceremonies		• Strengthen/protect human capital (education health, VET, agricultural extension, regional social funds) • Regulate against accidents & inequality (traffic code, construction code, environ. regul., labor m. pol. • Provide services and infrastructure (vaccination, dams)
Mitigation				
Portfolio Management	• Diversify (crops, jobs) • Invest (human, physical real assets)		• Invest in multiple financial assets	
Insurance	• Reciprocate (*mutuelles*, *tontines*, professional associations) • Strengthen social capital (marriage, folk groups, ceremonies, traditions)	• Pool risks (cereal banks, village banks) • Itinerant banks	• Buy private insurance	• Provide social security (CNSS and CRT)
Hedging	• Extended family			
Coping				
	• Diminish human capital (reduce meals, take children out of school) • Diminish economic capital (borrow, sell) • Diminish social capital (child labor, borrow, plead)	• Diminish social capital (child trade) • Diminish economic capital (borrow from usurers • Charity	• Diminish economic capital (borrow from bank and MFI) • NGO programs	•Protect economic capital (AGETUR, regional social funds, emergency aid) •Protect human capital (food aid, emergency aid)

Source: adopted from Bendokat and Tovo, 1999:15; *endogenous arrangements are organized by the prospective beneficiaries, exogenous arrangements are organized by agents generally not belonging to the country.

Annex 2b: An example of a risk assessment exercise: Risk factors in Togo

	Individual and household level	Community level	National level
Natural factors	• Agricultural productivity (soil erosion, low fertility) • Health (poor sanitation, smoke exposure)	• Agricultural productivity (environmental degradation, natural disasters) • Health (unhealthy habitat, unsafe water	• Primary sector services (natural disasters, limited natural resources) • Demographic pressure • Epidemics (AIDS)
Social factors	• Health (disease, old age, handicap) • Education/Information (illiteracy, low education, isolation) • Social capital (high dependency ratio, intra-household inequality, household break-up)	• Human capital (limited access to social services (health, education, family planning) • Social capital (discrimination, harmful traditional practices)	• Human capital (insufficient and inefficient sectoral policies and programs • Inequality (discrimination, inequitable and inadequate budget allocation)
Economic and political factors	• Income (low returns to labor, unemployment, irregular salaries, no access to credit) • Inter-household inequality (in access to land, rights and duties related to social standing) • gender discrimination (unequal access to productive assets)	• Income (limited access to land, economic infrastructure, and employment opportunities) • Isolation, remoteness • Inefficient production systems	• Assets and income (limited land, economic infrastructure and employment opportunities) • Structural inequalities (poorly integrated market for food products, poor rural infrastructure) • Governance (fiscal problems, land tenure, clientelism, corruption)

Source: adopted from Bendokat and Tovo, 1999:6.

Bendokat and Tovo (1999) attempted to identify the risks by which the Togolose are exposed. They recognize that the distinctions between the nature of the risks (natural, social, economic and political) and the correlation (individual and household, community and nations) are not always clear-cut. In this table, the risks which lead to the basic outcomes are named in brackets. For example, Bendokat and Tovo (1999) cite (low) cite agricultural productivity and health as natural factors at an individual and household level. They are outcomes of the risk soil erosion, low fertility, poor sanitation and smoke exposure.

Annex 2c: An example of a risk and risk management assessment exercise: The Dominican Republic – Risks by age group, leading indicators of risks with current values, uncovered poor and possible measure to manage risks

Age Group	Main Risks	Leading Indicators of Selected Risks	Indicator Value (1998)		Number of Poorest 10% and 30% Uncovered, 1998		Covering the Gap with Measures of:	
			Poorest 10%	Poorest 30%	Poorest 10%	Poorest 30%	Risk Prevention	Risk Coping
0-4 years	Stunted child development	- Malnutrition - Pre-school coverage	--- 4.0	11.0 6.1	--- 140,000 (67% rural)	--- 350,000 (65% rural)	- Reduce poverty - Increase coverage of ECD programs	- Care of malnourished
5 years	Stunted child development	- Pre-primary coverage	36.5	41.1	17,000 (65% rural)	43,000 (6% rural)	- Reduce poverty - Increase cov. ECD pro.	- Care of malnourished
6-13 years	Low human capital development	- Gross enrollment	65.7	73.6	70,000 (63% rural)	162,000 (56% rural)	- Increase coverage primary & secondary education	- Scholarships - Income support tied to school attendance
		- Grade repetition	---	5.7	---	---		
		- Late entry	---	---	---	---	- Reduce late entrance, repetition, raise quality	- Remedial education
14-17 years	Low human capital development	- Gross enrollment	59.9	66.8	27,000 (63% rural)	70,000 (56% rural)	- Raise secondary school enrollment	- Scholarships - Income support
		- Grade repetition	---	5.7	---	---		
		- Late entry	---	---	---	---	- Reduce late entrance, repetition, raise quality	- Remedial education
	Unemployment, low wages	- Youth Unemployment	53.6*	49.0*	11,800 (55% urban)	35,000 (54% urban)	- Employment	
18-24 years	Low human capital development	- Gross enrollment	12.0	20.3	76,000 (70% rural)	212,000 (57% rural)	- Raise secondary school enrollment, and reduce high drop-out rates	- Scholarship, - Income support tied to school attendance and/or training activ.
	Unemployment, low wages	- Youth unemployment	41.8*	38.0*	21,000 (58% urban)	62,000 (61% urban)	- Raise school enroll. by improv. access & quality - Improve access of poorest to tertiary education	

* Young people actively looking for a job, plus young people who did not get a job and did not continue looking for one or were waiting for results of application for employment.

Age Group	Main Risks	Leading Indicators of Selected Risks	Indicator Value		Number of Poorest 10% and 30% Uncovered, 1998		Covering the Gap with Measures of:	
			Poorest 10%	Poorest 30%	Poorest 10%	Poorest 30%	Risk Prevention	Risk Coping
	· Inactivity (violence, substance abuse, etc.)	- Inactivity	---	---	---	---	- Employment	- Remedial education - Youth programs
25-64 years	· Low income	- Unemployment	21.5	16.0	31,000 (59% urban)	81,500 (63% urban)	- Labor intensive growth	- Income support - Remedial education - Targeted training/job search assistance
		- Below poverty earnings (underempl.)	---	---	---	---	- Flexible labor market	
Over 65 years	- Chronic diseases	- Health insurance coverage	---	4.0**	50,000	135,000	- Increase coverage of health insurance	- Increase coverage of health care for the elderly
	- Low income	- Pension coverage	---	2.3**	50,000	135,000	- Increase coverage of pension system	- Increase coverage of non-contributory pensions
General Population								
- **Health**	- Poor health care	- Health insurance coverage	3.0**	4.5***	800,000	2,350,000	- Health insurance	- Public health care
- **Housing**	- Poor housing conditions	- Housing deficit	---	---	---	---	- Promote savings and mortgages	- Housing subsidies - Relocation of families - Land titling
- **Basic Services**	- Lack of basic infrastructure	- Indoor running water - Indoor sanitation	23.0 15.0	30.0 22.0	630,000 700,000	1,700,000 1,900,000	- Investment in water - Investment in sanitation	- Subsidies for water & sanitation connection for the poorest
- **Natural Disasters**	- High frequency of hurricanes, floods	- Damages of hurricanes, floods, etc.	---	170,000 houses affected by Hurr. Georges	---	320,000 (Ozama River margins)	- Relocation of families to safe places - Improve housing	- Temporary shelter provision - Food / medicines

Source: World Bank (2000b)

Annex 3: PROST

Pension reforms are an important part of providing better social protection for formal sector workers in most countries. Unsustainable pension expenditures frequently squeeze out all other types of social spending with major implications for broader social protection as well. Given the potential economic and political repercussions, it is essential one undertakes a systematic analysis of the costs and benefits of pensions reforms and alternatives available. Under the twin pressures of demographic aging and the maturing of pension schemes, it is not easy to undertake reforms which are both fair to all relevant stakeholders and fiscally sustainable.

The World Bank's pension reform options simulation toolkit, PROST, models pension contributions, entitlements, system revenues and system expenditures over the long term. The model is designed to promote informed policy-making, bridging the gap between quantitative and qualitative analysis of pension regimes. It is a flexible, computer-based toolkit, easily adapted to a wide range of countries' circumstances. It can also be used for other types of social payments, such as family allowances on either a contributory or non-contributory basis.

PROST is designed to answer the following kinds of question:

- How much will the pension system cost in the future? Is it viable and sustainable?
- What kind of benefits can people expect to receive in the future?
- Is the pension system equitable? Does it provide a decent retirement income to different categories of people?
- How large are the government's implicit pension liabilities?
- How would broadening coverage, changing retirement age or adjusting contribution rates affect the system? How will costs, expenditures and liabilities change under various reforms?

The model takes country specific data provided by the user. It generates population projections, which, combined with economic assumptions, are used to forecast future numbers of contributors and beneficiaries. These in turn generate flows of revenues and expenditures. The model then projects fiscal balances, taking account of any partial pre-funding of liabilities.

A separate module allows users to specify individual types, by gender, age of starting work, income levels, mortality experience, and work experience to determine how the pension system treats each of these individual types, allowing the user to do distributional analysis. The output provides this information for cohorts over time as well, allowing analysis of both intergenerational and intragenerational distribution. This type of analysis can be done for the current system as well as for proposed reforms, giving the user a sense of winners and losers under each type of reform.

All of the modules allow for analysis of the sensitivity of results to key demographic and economic parameters, such as fertility, longevity, wage growth and interest rates. PROST is easy to use, with training programs, clear and concise manuals, documentation of underlying formulae, and troubleshooting, technical support. Model assumptions are transparent and sensitivity analysis is readily accessible.

Source: Canagarajah *et al*., 2001: Appendix 3

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